U.S. Environmental Protection Agency
Region 5

A Plan for Achieving the Agency's Goals and Objectives in Region 5

2004 - 2006

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Executive Summary

Region 5 has and will continue to work with its State and Tribal partners, in the context of Performance Partnership Agreements, Tribal Environmental Agreements, and other joint strategic dialogs, to review and refine the focus of our collective and individual efforts on those problems of highest priority in the Region. For several years, Region 5 has concentrated much of its efforts in addressing problems in specific geographic areas and in focusing on specific environmental and human health challenges in the Region.

Beginning in FY 2004, the Region has initiated a **Great Cities Program**, which is designed to enhance our work in geographic areas by addressing complex environmental problems in urban areas which, whether single or multi-media in nature, benefit from an innovative approach under the management of dedicated staff. The Region will focus on action, not analysis; use individual projects to get to results; seek comprehensive, community supported solutions; bring the full range of EPA regulatory and voluntary tools and expertise to bear on the problems; leverage resources from across the agency as well a with other federal, state, local, and private partners; and build on existing capacity in groups and institutions wherever possible.

For the period of FY 2004 though FY 2006, Region 5 will also focus its efforts on addressing a specific list of inter-related environmental and human health challenges in the Region: Community Air Toxics, Elevated Blood-Lead Levels in Children, Gulf of Mexico Hypoxic Zone, Methylmercury in Fish, Persistent Toxics from Contaminated Sediments in the Great Lakes Basin, and Water Quality and Swimming.

The Region is implementing improved processes for up front planning and priority setting with the States and Tribes. Each Performance Partnership Agreement (PPA) negotiation period will start with a period to identify mutual and singular priorities. The Region and each State will work together to identify the top priorities as well as develop a skeletal work plan that identifies how both agencies will pool their resources to achieve the goal. The Region is also participating in a pilot project with the States of Indiana, Minnesota, and Wisconsin on planning and accountability. The primary context for overall planning between the Region and the Tribes is the Tribal Environmental Agreements (TEAs), which focus on specific environmental problems, programmatic development, and capacity building.

I. An Overview of Region 5

History and Background

The Northwest Ordinance of 1787, considered to be one of the most significant achievements of the Congress of the Confederation of the fledgling United States, allowed for the creation of as many as five states in the northwest portion of the Ohio Valley on lines originally laid out in 1784 by Thomas Jefferson in his Report of Government for Western Lands. Known as the Northwest Territory or the Old Northwest, this first possession of the United States was located south and west of the Great Lakes, northwest of the Ohio River, and east of the Mississippi River. It included the present states of Ohio, Indiana, Illinois, Michigan, Wisconsin, and part of Minnesota, the states that currently comprise EPA's Region 5. The policies that were devised for the sale of land and for the government in this region established precedents for the settlement of the public domain across the whole of the United States.

European settlement had a profound effect on the physical character of Region 5. Originally, Ohio, Indiana, and the southern third of Illinois were primarily covered by dense hardwood forests, while the remainder of Illinois, much of southern Wisconsin, and southern and western Minnesota were dominated by tall grass prairie. Northeastern Minnesota, northern Wisconsin, and much of Michigan were covered by mature mixed deciduous and evergreen forests. Throughout the nineteenth century, extensive logging for lumber and land clearing for agriculture eliminated most of the mature forests and prairies. Today, the landscape of Region 5 is dominated by lands in agricultural production and by second growth evergreen and deciduous forests. The main crops for Region 5 are corn, sorghum and soybeans which comprise 78.2% of the Region's cropland. Other crops that are grown in Region 5 include wheat, fruit, vegetables, and hay. Timber is grown and harvested for pulp, lumber, and composite products.

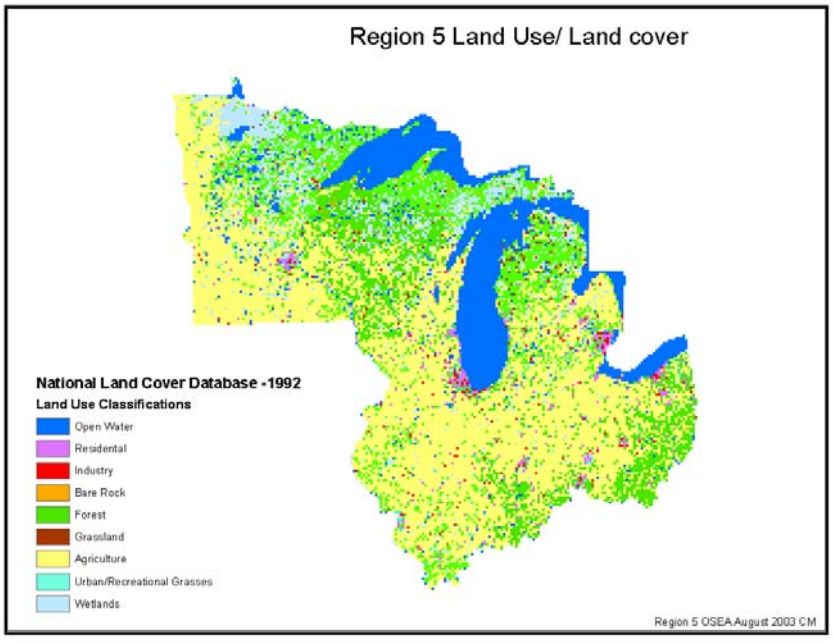

Figure 1: Data Source: 1992 National Land Cover Database, USGS

The settlement of the states in Region 5 was facilitated by the major waterways that surround, and in large measure define, the Region, the Ohio and Mississippi Rivers and the Great Lakes. According to the 2000 U.S. Census, 17.8% of the population of the United States resides in Region 5, and the Region's highest population density centers are found around the Lower Great Lakes with several of the Region's major metropolitan areas (Milwaukee, Chicago, Northwest Indiana, Detroit and Cleveland) located along the lower Great Lakes shoreline. Although Region 5's largest land area is devoted to agriculture, the region's economy also has a strong industrial base, most of it located in the areas of highest population density. As a matter of fact, most of the Region 5 states' gross product comes from manufacturing, and the gross state products of the Region 5 states account for 17% of the combined gross state products of all fifty states in the nation.

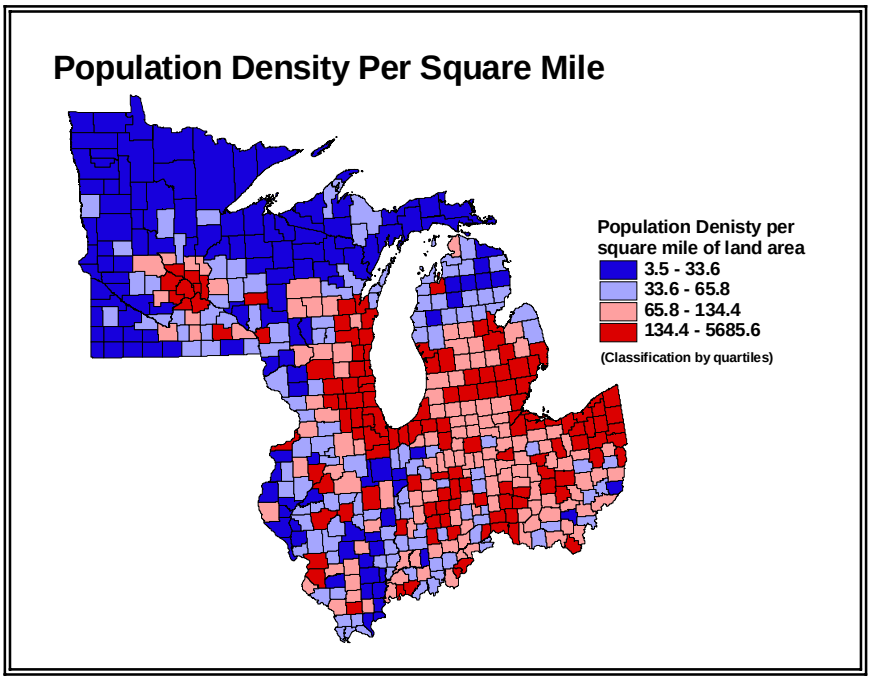

Figure 2: Data Source: 2000 Census, US Census Bureau

Region 5 is water rich compared to much of the country and thus water is a big factor in the activities of this region. There are approximately 1.5 million more inland lake acres in Region 5 than the national average for the EPA regions. The 5,801,970 acres of inland lakes, combined with the four Great Lakes in Region 5 and the many river/stream miles, makes surface water a dominant issue in this region. In addition to providing aquatic habitat and meeting the needs of industry, surface water is a source of drinking water for community water systems in Region 5 serving 26 million people. Another 14 million people receive water from community water systems that utilize ground water.

Environmental and Human Health Challenges and Priorities in Region 5

Region 5 has and will continue to work with its State and Tribal partners, in the context of Performance Partnership Agreements, Tribal Environmental Agreements, and other joint strategic dialogs, to review and refine the focus of our collective and individual efforts on our highest priority problems. For several years, Region 5 has concentrated much of its efforts in addressing problems in specific geographic areas and in focusing on specific environmental and human health challenges in the Region. The Region is in the process of completing work in a number of those geographic areas and will begin work in others. Similarly, our focus on environmental and human health challenges will continue to evolve as we make progress and as new challenges emerge.

Beginning in FY 2004, the Region has initiated a **Great Cities Program**, designed to enhance our work in major cities by addressing complex environmental problems which benefit from an innovative approach under the management of dedicated staff. The Region will focus on action, not analysis; use individual projects to get to results; seek comprehensive, community supported solutions; use the full range of EPA regulatory and voluntary tools and expertise on the problems; leverage resources from across the agency as well as from other federal, state, local, and private partners; and build on existing capacity in groups and institutions wherever possible.

For the period of FY 2004 through FY 2006, Region 5 will also focus its efforts on addressing a specific list of inter-related environmental and human health challenges in the Region. We will work with our co-regulators and partners at the states and tribes to identify agreed upon actions to address these challenges and reflect those agreements in Performance Partnership Agreements, annual Program Cooperative Agreements, and Tribal Environmental Agreements. A description of Region 5's Challenges, the measures of success we hope to achieve, our strategies for achieving that success, and the milestones by which we will track our progress follows:

Community Air Toxics (Urban and Neighborhood Scales)

The EPA's National-Scale Air Toxics Assessment (NATA) includes a nationwide modeling analysis of the inhalation exposure to 33 toxic air pollutants. Based on the 1996 NATA results, over 22 million people in Region 5 live in areas with estimated excess cancer risk greater than 5 in 100,000 (5×10^{-5}). However, since NATA only estimates risks from breathing outdoor pollutants, this risk level is likely to be an underestimate of the population's actual exposure. In addition, the Risk Screening Environmental Indicators (RSEI) model and 1999 TRI data show Region 5 contains four of the top six states nationally when ranked based on relative risk value.

Region 5 has initiated and/or participates in several large urban air toxics efforts which aim to involve community stakeholders in understanding risk and making decisions on local mitigation strategies (Cleveland Air Toxics Pilot, Clean Air Counts). These efforts require significant facilitation and start-up resources from EPA, and future efforts of this scale will be optimized by focusing on areas selected through the Agency's CARE process, Office of Air and Radiation's CARRI funding or as an RGI-funded effort in one of the Region's Great Cities. To complement these larger scale efforts, Region 5 will use various analytical tools to assess neighborhood areas of high risk which are driven by more unique or singular factors, such as a single pollutant of concern or an individual source. These are efforts where limited regional resources can have a significant impact in terms of early risk reduction and addressing localized hot spots. The level of state and community involvement will be tailored to the problem being addressed, and will likely be significantly less than the broader urban efforts noted above.

The goal of the national air toxics program, in support of Subobjective 1.1.2, is to eliminate unacceptable risks of cancer and other significant health problems from air toxics for at least 95% of the population by 2020. The regional air toxics goal is to reduce risk from air toxics so that as many people as possible are below an air toxics cancer risk of 1×10^{-4}. This community air toxics priority is a focused effort to reduce risk through tangible urban and neighborhood projects.

Measure of Success: Number of areas for which cancer and/or non cancer risks are significantly reduced through the implementation of focused neighborhood and urban projects.

Strategy: Develop the methodology and data needed to clearly determine areas which are disproportionately impacted by air toxics, identify those areas of highest risk which will not be resolved through upcoming regulatory efforts and which provide a ripe opportunity for action and environmental benefit, and implement neighborhood-scale projects that will reduce risk to a level less than 1×10^{-4}.

Step 1: Describe the quality of the air - Current data offers a broad characterization of risk in the region but is not designed to characterize or compare risks at the local level. In order to prioritize and target communities with high risk resulting from air toxics, more refined information must be developed. This will be accomplished by:

- Performing more refined analyses using data from NATA, RSEI and TRI
- Using ambient monitoring data to identify areas of concern
- Enhancing our air monitoring field laboratory capability

Step 2: Determine priority areas - Regional investment will complement the Agency's programs, targeting areas where early action can address a gap or provide significant early reductions and health benefit. Factors to consider include the pollutant(s) of concern, the timing of national regulatory programs, the health effects and impacted population, etc. We will develop decision making tools in order to prioritize or identify air toxics projects by considering the following:

- Technical Assessment: including evaluating the technical information available to determine areas of elevated risk, areas where risk is driven by single pollutants or sources, human health impacts of the pollutants of concern, engineering analysis of feasibility of reduction strategies
- Enhancing In-house Expertise: certain projects may have a co-benefit of providing experience in new methods and tools which can then be applied elsewhere (e.g. Grede Foundry)
- Regulatory Assessment: assessing existing and upcoming regulations (e.g. MACT and residual risk regulations) in areas of high risk to determine if promulgated regulations will resolve the concern more effectively than a localized project
- Political and Social Considerations: determining our ability to have a significant impact based on considerations such as State and local agencies involvement, environmental justice implications, economic implications and potential success of mitigation.

Step 3: Take action in collaboration with others - Work with the appropriate level of community and other stakeholders. The level of stakeholder involvement will be determined on a case-by-case basis, but will emphasize more the educational aspects of how we came to target the "hot spot" and promoting mitigation.

Elevated Blood-Lead Levels in Children

Region 5 cities have exceptionally high rates of children with elevated blood-lead levels (EBLs). Data indicate that between 14-22% of children tested in major Region 5 cities have EBLs, compared with the national average of 2.2%. Elevated blood lead levels in children have been shown to impair intellectual development.

A number of factors have contributed to children's EBLs in Region 5. The largest contributor to this problem continues to be deteriorated lead-based paint used in residential and other property in Region 5. This paint was attractive in the cold climate because it resists freeze-thaw and dampness stresses. Large number of housing units in Region 5 cities were built when lead-based paint was in use.

Another significant source of exposures for lead is soils (5% of play area soils nationwide have lead over 400 ppm). There are also a large number of operating or abandoned industrial facilities that have lead contamination problems. Recent events in Region 3 suggest that drinking water may also provide a significant but under-estimated lead exposure in some communities. WPTD would look for support from other programs to provide assistance in the areas of background investigations as well as identifying and addressing these other sources of lead contamination.

Measure of Success 1: By 2008 reduce the number of children with EBL in Region 5 from 72,000 (in 2001) to 27,000.

Measure of Success 2: By 2010, all children will have blood lead levels below the CDC and EPA action level of 10µg/dl in accordance with the federal inter-agency lead strategy and GPRA goals.

Strategy: Our strategy will consist of three approaches - -fostering effective partnerships, targeting efforts to reduce exposures to lead in areas / neighborhoods with the greatest need (i.e. "Hotspot" approach) and effectively implementing Federal programs and seeking out and implementing non-conventional approaches where needed and appropriate.

Fostering Effective Partnerships : We will identify, develop and maintain cooperation and coordination among all Federal, State and Local Agency partners who have or should have partial jurisdiction in lead poisoning prevention, including environmental, health, housing, education and family service agencies.

Targeting Efforts ("Hotspot" Approach): We will develop tools and provide technical assistance for data, mapping, modeling and analysis to our partners. We will provide targeted outreach to high-risk communities and their service providers directly or with partners.

Effective Implementation of Federal Programs and Implementation of Non-Conventional Approaches: We will provide compliance assistance and carry out compliance monitoring and enforcement, as needed. We will promote a demand for and work with States and Tribes to insure

a trained and certified workforce capable of reducing lead based paint hazard in a safe and environmentally sound manner through market-based incentives.

Gulf of Mexico Hypoxic Zone

Over the past 20+ years researchers have been documenting the summertime occurrence of an oxygen-starved hypoxic zone in the northern Gulf of Mexico. Data suggest that the zone has increased dramatically in size over this period. The presence of a hypoxic zone in the Gulf, particularly of the size to which it has grown, is of concern because of its potential impact on aquatic life in the Gulf, in particular on economically important species such as shrimp.

Nutrient loadings from throughout the Mississippi/Atchafalaya River Basin, including a large portion of the area of Region 5, are believed to be the principle cause of the expansion and increasing persistence of the hypoxic zone in the Gulf of Mexico. In 2001 EPA and other members of the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force issued an "Action Plan" describing a series of steps that would need to be taken to reduce the size and significance of the hypoxic zone, while also addressing local water quality issues in the watersheds draining to the Gulf, and maintaining and improving economic and quality of life conditions for people living in the Mississippi/Atchafalaya River Basin.

Because of the significant nutrient contributions of the watersheds in Region 5, the work described in the Action Plan has important implications to us and describes a major priority for Region 5. To meet this challenge we will focus our attention on the watersheds with the most significant contributions of nutrients into the system and establish strategic partnerships with the States, agricultural community, other federal agencies and nongovernmental organizations. Using these partnerships we will increase the delivery of technical assistance, resources and, where appropriate, regulatory tools to reduce the loading of nutrients into the system, and we will, further, ensure that monitoring programs are in place to document the improvements.

While the Action Plan and the supporting analyses point to nitrogen as the principal nutrient causing the hypoxic condition in the Gulf, recent analyses suggest that phosphorus may instead be the most important nutrient. Clarification of this matter is of great importance, as it will have major impact on the identification of priority watersheds for our collaborative work and will also greatly affect the tools and techniques that we and our partners employ to reduce nutrient loadings.

The Action Plan envisioned a state-led process to organize and manage "sub-basin committees" that would be responsible for facilitating and coordinating implementation of the action steps. Until recently, no state in the Upper Mississippi River Basin had expressed interest, or even willingness, to step into this role. At the urging of Regions 5 and 7, Iowa now appears to be agreeable, and we are poised to empower their leadership.

Regardless of whether the nutrient of concern is nitrogen or phosphorus, the most important source of loading into the water is agriculture by way of nonpoint source discharges. Since there is no regulatory

program for nonpoint sources of pollution, we will need to build and strengthen our partnership with agriculture. Through that partnership we will explore innovative approaches to accelerate the adoption of voluntary management practices in the agricultural community. We will further work with our state and agriculture partners to promote innovative ways to leverage each others' resources so that Farm Bill and Clean Water Act funds complement each other and enable complete nonpoint source solutions, covering both the management practices to reduce loadings and the monitoring to document their effectiveness.

Regional Strategic Target: In support of Subobjective 4.3.5 of the U.S. EPA strategic plan, by 2010, we will decrease loadings of critical nutrients from agricultural, industrial and urban sources in targeted watersheds in the Upper Mississippi River basin by 30% [rolling 5-year average compared to 1980-1996 average]

Strategy 1: We will prioritize the watersheds within the Upper Mississippi River basin by their anthropogenic contributions of critical nutrients to the system and target our regulatory and assistance tools to reduce loadings.

Milestone 1(a): By April 2005, Region 5, EPA will complete an assessment and a prioritization of all of the watersheds within the Upper Mississippi River basin, based on anthropogenic nutrient (both nitrogen and phosphorus) and sediment loadings, and map the results.

Milestone 1(b): By FY04, Iowa, with support from Regions 5 and 7, will convene and lead a sub-basin team to facilitate communication, coordination and cooperation between the states on nutrient reduction efforts and to assess the water quality effects of these efforts.

Strategy 2: We will partner with agriculture, the states, other Federal agencies and NGOs to leverage resources and tools and accelerate the adoption of voluntary management practices in the agricultural community, industry and municipalities to reduce nutrient loadings.

Milestone 2(a): In 2004, in partnership with MNRG agencies, we will collaborate with TNC and others to develop and in 2005 we will implement a program to monitor the effect of wetlands restoration efforts along the Illinois River (Emiquon) on nutrient loadings to the system.

Milestone 2(b): By 2006, voluntary "BASF-like" industry-led point source innovations reduce nutrient discharges to the Upper Mississippi River system in one priority industrial category.

Milestone 2(c): By 2006, the Great Miami River trading pilot will have demonstrated trades between the City of Dayton and upstream nonpoint sources.

Milestone 2(d): By 2008, nutrient farming/wetlands restoration projects by TWI and others in the Illinois River system will demonstrate the potential efficacy of the practice for removing nutrients (nitrogen and/or phosphorus) from the river.

Milestone 2(e): By 2007, Farm Bill EQIP funding and CWA 319 funding is being directed to projects in targeted watersheds to reduce nonpoint source nutrient loadings.

Methylmercury in Fish

Mercury is introduced into the environment through a wide array of sources, including atmospheric deposition and releases from soils, sediments, industrial processes and non-point sources. Mercury is volatile and easily transferable once it is released to the environment, and ultimately much of it makes its way into Region 5 lakes and rivers, including the Great Lakes, where it can transform to methylmercury and enter the food chain. Mercury is an element that persists in the environment.

Methylmercury in fish tissue poses a human health risk, as mercury affects the nervous system. The populations most at risk are fetuses (exposed through the mother's consumption of fish), infants, and young children because of the sensitivity of their developing nervous systems. Native Americans and other subsistence fishers are also at higher levels of risk because increased levels of fish consumption result in a greater potential exposure. All states in Region 5 have issued fish consumption advisories for mercury and the states have identified over 2200 waterbodies in Region 5 impaired due to mercury contamination, making it by far the single most common cause of water quality impairment.

Mercury presents another challenge in that it is truly a multi-media issue: while fish contamination is the main route of human exposure that we need to address, the sources of mercury that end up contaminating the water and hence the fish are varied. In most water bodies, the large majority of mercury inputs are atmospheric, and the source of the mercury to the air may be distant from the water body in which it is deposited. "Legacy" sources, such as sediments, play a role, as do direct water discharges in some cases. This argues for an innovative multi-media approach to accelerate source reductions.

Our goal is to have methlymercury levels in fish low enough to remove all related fish advisories in Region 5. Attainment of this goal will take a long time, so as an interim target, Region 5 will strive to achieve a proportionate share of the national goal for reductions in mercury emissions by 2010. Our strategies will include a mercury phase-down program, Regional TMDLs in Minnesota, reductions in mercury use in hospitals by 2008, and implementation of a Regional Guidance for mercury pollutant minimization plans for municipal wastewater treatment plants. Concurrently we will continue to educate the public on the contaminant levels in fish and will continue to assess Regional trends in fish tissue data. We will also continue to cooperate with the states under the Quicksilver Caucus framework to help effect mercury reductions.

Regional Strategic Target 1a: By 2006, air emissions of mercury from man-made sources in Region 5 will be reduced by 50 percent from 1990 National Emission Inventory levels.

Regional Strategic Target 1b: By 2008, the reported levels of mercury in sewage biosolids (from major POTWs that land apply biosolids) have declined by 25% from a 2000 baseline.

Regional Strategic Target 1c: By FY 2005 1% of the water miles/acres identified by States or Tribes as having fish consumption advisories in 2002 will be cleaned up to allow for increased consumption of safe fish. [Goal 2, Strategic Target H]

Strategy 1: In partnership with States and Tribes, we will develop innovative approaches to reducing mercury loadings from all media, using appropriate tools that focus on pollution prevention rather than treatment technologies.

Milestone 1(a): By 2006, develop a mercury phase down plan and have formal agreements with at least two States to either implement the phase down plan, develop mercury TMDLs or implement some other alternative.

Milestone 1(b): By December of 2005 approve two regional (i.e., northern and southern regions of MN) TMDLs for Minnesota, addressing 1174 impaired water bodies.

Milestone 1(c): By 2005 the Regional guidance for mercury pollutant minimization plans for municipal wastewater treatment plants will be implemented throughout Region 5.

Milestone 1(d): By 2006 conduct pretreatment audits where mercury and other monitored bioaccumulative chemicals have increased to determine sources and rectify problem.

Milestone 1(e): EPA funding and technical assistance will by 2005 and annually thereafter, result in increased membership in Hospitals for a Healthy Environment (H2E), increased membership in the National Waste Minimization Partnership Program (NWMPP), and increased membership in the Federal Electronics Challenge compared to the prior year.

Milestone 1(f): EPA funding and technical assistance for the proper use or disposal of electronic waste components will by 2005 accomplish: partnerships with 5 Wisconsin target areas to hold mercury thermometer collections; in cooperation with Michigan, mercury collections in 5 target areas; in cooperation with Illinois, 1 household hazardous waste collection.

Strategy 2: We will achieve significant reductions in mercury emissions in Region 5 states, with percentage reductions matching or exceeding nationwide goals, through implementation and enforcement of all maximum available control technology standards, and other federal emissions standards.

Milestone 2(a): By 2005, EPA will complete an analysis that identifies the federal emissions standards that reduce mercury emissions and the sources that these standards apply to in Region 5, and that assesses the opportunities to gain further reductions through enhanced enforcement and compliance assistance. By 2006, EPA will develop and begin

to implement an enforcement and compliance assistance strategy to maximize mercury reductions.

Milestone 2(b): EPA will work to ensure that by the end of 2006 each of the Region 5 states submits an approvable plan to implement the interstate air quality rule (IAQR), which requires reductions in emissions of sulfur and nitrogen, leading to mercury reduction co-benefits. EPA will also work with states to integrate IAQR plans with a utility mercury reduction strategy and with state plans for implementing the utility mercury reduction rule (which will not be required until after 2006). In the absence of approvable state IAQR plans, optimized for the needs of individual states, EPA will be prepared to implement a federal plan. This milestone assumes the finalization of the interstate air quality and utility mercury reduction rules.

Regional Strategic Target 2: By FY 2005, in 98.4% of lake acres and 51% of river miles in Region 5, fish tissue will be assessed to support waterbody-specific or regional consumption advisories, or a determination that no consumption advice is necessary. [PAM # 28]

Strategy 1: We will build (through targeted funding, technical assistance, etc.) adequate sampling and analytical capacity in States, Tribes and others to fully implement the fish contaminant monitoring programs needed to support fish consumption advisory programs, to characterize contaminant trends and to inform the public.

Milestone 1(a): By June 2004, EPA and the States will cooperatively publish a plain language report on the contaminant levels in fish across Region 5, describing what we know and don't know about trends.

Milestone 1(b): By December 2005, EPA and the Tribes will have evaluated current monitoring efforts and determined how data on water bodies in Indian Country (e.g., data on mercury in fish tissues, sediments, and/or the water column) can/should be used in tracking trends.

Persistent Toxics from Contaminated Sediments in the Great Lakes

Contaminated sediments currently impact beneficial uses at all 31 of the U.S. Areas of Concern (AOCs) on the Great Lakes. They are the main cause of fish consumption advisories in many AOCs, and are linked to 11 of the 13 beneficial use impairments listed in the Great Lakes Water Quality Agreement with Canada. Contaminated sediments also adversely impact a wide range of other recreational, economic, and natural environmental uses of the Great Lakes.

Measure of Success: The Key Objective of the *Great Lakes Strategy 2002* is to complete the clean up of all known contaminated sediment sites in the Basin by 2025.

Strategy: Develop and implement a collaborative outreach strategy to promote greater public awareness of contaminated sediments issues and enhance public involvement in the remedial decision-making process early and often. Engage in a dialogue with regional industrial and manufacturing groups to promote greater corporate participation in contaminated sediment remediation. Accelerate the pace of contaminated sediment remediation, working to overcome barriers to progress identified at each site. Restore the beneficial uses impaired by sediment contamination in AOCs, as a critical step toward their delisting. Monitor before, during, and after sediment remediation to assess and document remedy effectiveness.

Milestone 1: Continue to initiate at least three remedial action starts each year.

Milestone 2: Beginning in 2004, complete three sediment remedial actions per year until all known sites in the Basin are addressed.

Milestone 3: By 2004, each State member of the U.S. Policy Committee, working with USEPA, USACE, NOAA, and the U.S. Fish and Wildlife Service (USFWS), will develop an integrated list of sites for remedial and restoration activities, with estimated costs and schedules. These lists will be updated biennially. USEPA will maintain this comprehensive list of known contaminated sediment sites in the Great Lakes, including, but not limited to AOCs, that will help to inform the Great Lakes community on the location and magnitude of remaining sediment contamination that could require remedial and restoration actions.

Milestone 4: Delist at least three AOCs by 2005 and a cumulative total of 10 by 2010. AOCs that are initial candidates for meeting the first part of this milestone are Waukegan Harbor, IL; Presque Isle Bay, PA; Oswego River, NY; and Manistique, White Lake, and Torch Lake, MI.

Water Quality and Swimming

The Great Lakes and large urban rivers in Region 5 are an invaluable recreational resource; however, wet weather pollution from combined sewer overflows (CSOs), separate sanitary sewer overflows (SSOs) and storm water (SW) discharges too often contaminate beaches and water with

pathogens, making swimming unsafe. Of the 278 high priority Great Lakes beaches identified by states many are within CSO communities or under the influence of SSO or SW discharges that have the potential to adversely impact swimming. Similarly, rivers that flow through our cities may be impacted by these wet weather sources of pollution. Especially in urban areas, these waters may be heavily used for recreation by minorities, so their impairment may also have environmental justice implications.

In response to the contamination of coastal beaches, Congress passed the BEACH Act in 2000, providing support for beach monitoring and management programs. States and local communities are using this program to ensure that adequate pathogen monitoring is conducted at beaches and the public notified when conditions are unsafe. Nonetheless, current monitoring technologies are slow, so notification may occur after some have been exposed to contaminated waters. EPA and others are working to develop and test rapid monitoring techniques. EPA has been pushing for state adoption of updated pathogen standards as required by the BEACH act, but several of the States in Region 5 that are subject to that requirement still have work to do to get the standards in place.

Region 5 has 41% of the nation's CSOs. Our goal is to control wet weather pollution (from CSO, SSO, and SW) so that it causes no closures of high priority Great Lakes beaches and no risk to the health of those swimming or boating in urban rivers. Recognizing that this is a long term goal, our strategies will include development of protective water quality criteria, targeted efforts to ensure that CSOs have schedules in place to implement Long Term Control Plans (LTCPs), and implementation of an effective Region 5 storm water strategy. This fits well with national priorities: the Office of Enforcement and Compliance Assurance (OECA) has made CSOs a priority for the next few years, and several of the program activity measures for the Office of Water target CSO control.

Regional Strategic Target 1: By 2010, 90% of monitored, high priority Great Lakes beaches will meet bacteria standards for more than 95% of the swimming season.

Regional Strategic Target 2: By 2008, 5 priority impaired Great Lakes beaches support swimming at least 95% of the days of the beach season.

Regional Strategic Target 3: By 2010, 1% of the inland waters listed by states in 2002 as impaired for recreation use will be improved to support that use.

> **Strategy 1***:* We will target our inspection, permitting, enforcement, oversight, and assistance efforts, including state capacity building to reduce or remedy swimming impairments at five high priority Great Lakes beaches.
>
> > **Milestone 1a:** By July 2004, EPA in consultation with GLNPO, States and local beach managers will identify the top five impaired high priority Great Lakes beaches (or clusters of beaches, such as the Chicago lakefront beaches, which may make sense to group as a beach for our involvement) for federal involvement.

Milestone 1b: By FY05, federal watershed-based action will be underway to remedy impairments and control CSO, SSO, storm water, CAFO, land application of biosolids and on-site systems at 5 priority impaired Great Lakes beaches.

Milestone 1c: By FY05, 100% of CSO permits in Region are consistent with the national CSO Policy.

Milestone 1d: By FY05, 35% of all CSO communities in Region 5 will have schedules in place to implement approved LTCPs.

Milestone 1e: By FY06, all Region 5 states will have adopted, for the Great Lakes, recreational water quality criteria for E.coli and enterococci, or Region 5 will have promulgated the criteria for the State.

Strategy 2: We will, in four priority urban rivers, (Cuyahoga, Milwaukee, St. Joseph and Chicago Rivers) target our inspection, permitting, enforcement, oversight, and assistance efforts, including state capacity building, to reduce or remedy wet weather discharge problems that cause swimming use impairments.

Milestone 2a: By July 31, 2004, EPA will have a plan for each of the 4 rivers defining the actions and schedules, including roles and responsibilities of EPA and the states, for control of CSOs and other wet weather sources in each urban river, and have buy-in from the states.

Milestone 2b: By FY08, all CSO communities in the four river systems will have schedules in place to implement approved LTCPs

Strategy 3: Recognizing their importance to both pathogen impairments and other water quality problems across the Region, we will develop regional approaches to storm water runoff and discharging on-site sewage systems to guide our efforts to correct water quality problems caused by these sources.

Milestone 3a: By FY04, we will work with the states, using vehicles such as workshops, to characterize the water quality issues associated with storm water discharges and discharging on-site systems (e.g., the scale, geographic extent/clustering, association with particular activities/businesses, etc) and to identify potential regional roles, opportunities/targets, and approaches to pursue in cooperation with the states.

Milestone 3b: By March 2005, Region 5 will develop and reach agreement with the states on strategies to guide our investment and involvement in storm water control and control of discharging on-site sewage systems, and will amend this strategic plan to define specific environmental outcome measures that reflect its implementation.

Strategy 4: Encourage and assist States in their development of decentralized management programs to correct failing on-site sewage systems and prevent future failures and correct water quality problems caused by these sources.

> **Milestone 4a**: By 2005 we will host a Decentralized Forum and participate with each state when invited in state decentralized conferences on management and funding approaches for on-site sewage systems.

II. Regional Strategies for Achieving National Goals and Objectives

In this Chapter of the Plan, we describe on the following pages how the Region's work supports the National Goals and Objectives contained in EPA's 2003 *Strategic Plan*. The Plan articulates the strategies, core program tools, and innovative approaches that the Region is using to make progress toward achieving each relevant sub-objective in the Agency's Strategic Plan.

For each objective or sub-objective, the Region 5 Plan attempts to address the following questions:

A. What is the current state of human health or environmental protection for this Sub-objective in the Region and are there any relevant trends over time (i.e., what are indicators or data specific to this Sub-objective that characterize current status and trends as context for the Region's strategy)?

B. What are the major problems that need to be addressed in order to make progress toward the Sub-objective in the Region?

In addition, the Plan identifies the tools or program components (e.g., permits, enforcement, State capacity building, compliance assistance, direct program delivery, industry partnerships, etc.) that will be focused on those problems, and highlights any novel or innovative approaches the Region or the States or Tribes plan to pursue to implement a core program.

Where the Regional Strategy includes activities addressing Regional interests not covered by the National strategy, it describes these activities and identifies the primary measures that the Region will use to track progress in implementing its strategy.

Goal 1: Clean Air and Global Climate Change

Protect and improve the air so it is healthy to breathe and risks to human health and the environment are reduced. Reduce greenhouse gas intensity by enhancing partnerships with businesses and other sectors.

Region 5 Air and Radiation Division (ARD) supports the national goals and strategies laid out in the Agency's Strategic Plan. The information provided in the following tables describes the outcomes and desired results that we intend to achieve in the Region within each National Sub-Objective. It discusses the current state of the environment, our long term environmental goals, and our strategies to attain those goals. An outgrowth of these strategies will be specific activities and annual goals and deliverables included in our annual memorandum of understanding with our Headquarters Office of Air and Radiation (OAR).

We have identified several Regionally unique and overarching approaches which are driving our investments and decision-making. These involve both how we are addressing specific environmental problems of concern, but also problem-solving approaches or values which underlie our actions.

Partnerships: To effectively solve environmental problems, we must harness the cumulative resources of the Federal, State, Local and Tribal organizations. By continuing to strengthen our relationships, we can better identify common and individual priorities and how our roles can complement each other. ARD has invested in a strong annual planning process with States, Locals, Tribes, and Regional Planning Organizations which emphasizes communication at all levels, early identification of problems and a partnership approach to accomplishing our objectives by identifying our individual and joint strengths and roles. In addition, we have worked with the Tribes to develop an overall Region 5 Tribal Plan. The plan includes information about each Tribe, its environmental issues and the status of its environmental work or program. It is the starting point for ARD to prioritize environmental issues, and compliments the criteria and selection process used to evaluate Tribal funding requests in light of limited resources.

Although States/Locals/Tribal organizations are our primary partners in environmental protection, we also seek out opportunities to work with a variety of other entities to take advantage of specific knowledge or expertise. Through working with these entities and sharing knowledge, it is often feasible to identify and implement mutually agreeable near term strategies. Through these efforts, working cooperatively with others, we can better achieve our clean air goals.

Innovative Problem-Solving: Achieving further air quality gains requires each of us to approach environmental problems with an eye toward understanding the underlying causes and considering all options for solution, both traditional and non-traditional. Voluntary efforts can often bring about environmental improvement at a local level faster and more targeted to the specific problem of concern than existing regulatory programs. Innovative solutions that provide for win-win acceptance can often break the stalemates that occur due to our varied stakeholders and the complexity of our programs. Further, as public servants, we all accept the challenge of maximizing the public benefit we can provide by seeking continuous improvement of our programs and processes. A good example of how were incorporating these principles into our programs is in compliance assurance where we have pursued global enforcement settlements and expedited resolution of violations. This has resulted in more efficient use of resources in securing greater environmental benefits.

Fine particulate: Fine particulate emissions are the most serious environmental health threat that we face today. In addition to supporting the regulatory framework of monitoring, designations and state implementation plans, we are working with stakeholders on numerous emission reduction opportunities that can be pursued now. Because of the significant benefits that can be achieved in the next few years prior to

implementation of the Agency's fine particulate standards, voluntary efforts related to diesel truck, bus and locomotive engines are a priority. Working with State/local governments, communities and businesses, project areas include diesel truck, commuter and school bus retrofits, locomotive engine retrofits, idling practice changes, electrification projects and low sulfur diesel commitments. In addition, ARD's enforcement group is prioritizing these types of reductions (excluding school bus retrofits which are expected to have their own Congressional appropriation) for possible Supplemental Environmental Projects (SEP).

Air Toxics: Based on the 1996 National-Scale Air Toxics Assessment (NATA) results, over 22 million people in Region 5 live in areas with estimated excess cancer risk greater than 5 in 100,000 (5 x 10-5). In order to control air toxics risks, States, communities and EPA need to better understand and assess the risks while implementing near term voluntary efforts. We will be deploying additional toxics monitoring in the coming years. We will also be using the national level data and ongoing pilots to help us to focus efforts towards communities with potentially more significant issues. We have already seen that concentrations are higher in large urban areas and intend to further partnerships with our communities and the States to deploy monitoring equipment, assess and characterize the risks, and implement mitigation measures such as near term voluntary reductions like school bus retrofits, idling technologies and early low sulfur diesel implementation. In addition, we have developed a focused air toxic urban and neighborhood scale "Regional Challenge and Priority" covered in more detail in the "Overview of Region 5" chapter. This regional priority seeks to identify neighborhoods with the most significant risks not already being addressed by existing programs and to take action in these areas.

Schools: Improving air quality for children and other sensitive populations is a priority within the Region and ARD is actively supporting and engaging this priority. We intend to coordinate with the Waste Pesticides and Toxics Division, the Children's Health program manager, and other Divisions within the Region to put together a comprehensive information package with tools schools can use to address environmental concerns across media. Using this information, we can approach schools with all of the options available to them to provide a healthier environment for their students. Through this strategy, we can use our resources to most effectively continue our active role in engaging schools in the Tools for Schools program and environmental management system (EMS) strategies. We are also active in disseminating information on asthma and have folded that information into the training that we do for school administrators, principals and teachers. Encouraging schools to participate in the Energy Star program will be another component of our schools approach. We also intend to partner with school districts to fully participate in the"Clean School Bus USA" initiative to reduce children's exposure to diesel exhaust. We believe there are significant opportunities to improve air quality in schools and are partnering to bring these programs to our school districts. We continue to support the efforts of the Sunwise program when we are in schools advocating children's environmental health programs.

Homeland Security: Homeland Security is a high priority for EPA's Office of Air and Radiation (OAR) and Region 5's Air and Radiation Division (ARD). We will continue to support the Agency's role in providing national monitoring networks for radiation and biological contaminants. Although the Emergency Response program is the lead in responding to chemical, biological, and radiological events, ARD will provide support in the prevention and recovery activities related to Homeland Security, as defined by the Office of Radiation and Indoor Air. We are participating on relevant workgroups necessary to establish an effective internal Continuity of Operations Plan, and to coordinate with State/local agencies in promoting regional preparedness.

Objective 1.1: Healthier Outdoor Air. Through 2010, working with partners, protect human health and the environment by attaining and maintaining health-based air-quality standards and reducing the risk from toxic air pollutants.

Sub-objective 1.1.1: More People Breathing Cleaner Air. By 2010, working with partners, improve air quality to healthy levels for 39 percent of the people who live in areas where the air does not meet national standards for fine particles in 2001 and for 60 percent who live in areas not meeting national standards for 8-hour ozone in 2001.[1,2] While some areas may not reach attainment of these standards because of air pollutant concentrations that sometimes exceed the allowable levels, air quality will improve for an additional 27 percent of the people who live in areas not meeting standards for 8-hour ozone in 2001. Maintain attainment status for the 123.7 million people who had healthy air for the criteria pollutants in 2001.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Air quality in Region 5 has significantly improved since the enactment of the 1990 Clean Air Act. For the 1990 Clean Air Act National Ambient Air Quality Standards (NAAQS), in 2001 all monitors in Region 5 monitored attainment. However, 1-hour ozone monitoring for the Chicago and Northwest Indiana area, the Southeast Wisconsin area and the Cleveland area has since monitored nonattainment. Even though these areas are monitoring nonattainment, significant progress has been made in each. For example, in the multi-state Lake Michigan area in 1990, the area was originally designated with a design value of 190 ppb and a severe nonattainment classification. If the area were designated today, the design value would be 132 ppb and a moderate classification due to significant reductions in emissions brought about by implementation of mandatory and voluntary control measures. That means that when considering the 1990 NAAQS, nearly 36 million people are now living in "clean" areas which were once nonattainment for one of these pollutants.

In 1997, as required by Congress, EPA reviewed the ozone and particulate matter standards and found that health studies supported the need for more stringent standards to adequately protect human health and EPA promulgated the 8-hour ozone and PM fine NAAQS. For the 8-hour ozone and PM 2.5 NAAQS, there are many areas in the Region that are monitoring nonattainment. The most recent quality assured monitoring data shows monitors in 90 counties monitoring nonattainment for 8-hour ozone and 24 counties monitoring nonattainment for PM2.5. Once areas are designated nonattainment for 8-hour ozone and PM2.5, there will be a more complete picture of population affected.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

Region 5's Air and Radiation Division (ARD) has been working closely with the National Office of Air and Radiation (OAR) to achieve outdoor air objectives. Our goals and activities line up with the

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[1] U.S. Environmental Protection Agency. September 2002. *Latest Findings on National Air Quality: 2001 Status and Trends*. EPA 454/K-02-001. Washington, DC: GPO. Available online at http://www.epa.gov/air/aqtrnd01/: EPA Office of Air and Radiation Web Site. Date of Access: September 8, 2003.

[2] Areas not meeting the standards are EPA projections based on 1999-2001 air quality monitoring data, which is maintained in the *Air Quality Subsystem* (AQS). AQS contains ambient air pollution data collected by EPA and state, local, and tribal air pollution control agencies from thousands of monitoring stations. Information can be obtained from: U.S. Environmental Protection Agency, Technology Transfer Network, Air Quality System Web Site, http://www.epa.gov/ttn/airs/airsaqs/sysoverview.htm. Date of Access: September 8, 2003.

Strategic Plan and what OAR has established as its priorities, including reduction in exposure to particulates, ozone and toxics, reinventing our base programs and pursuing innovative and voluntary approaches, and working on global warming issues. To help describe our strategies and their relationship to the national strategies, first, it is important to understand some of the unique drivers in the Region that affect air quality and the current state of the air in Region 5.

When considering the air quality in Region 5 and more importantly how to ensure that it is protected and improved, it is essential to understand the significant population and industry source sectors that call the Region home. Region 5 has 50 million people or about 18% of the US population, the vast majority of which live in the 52 metropolitan areas in the region. 22% of the cities in the country with population over 25 thousand are in the Region. A full 50% of the nations Iron and steel capacity is within the Region and 24% of the nations coal fired utility electrical production (18% of total utility electrical generation) comes from Region 5. Annual vehicle miles traveled (in millions) in R5 is nearly 491,000 million miles or 18 % of the national annual VMT. 25% of the Nations manufactured goods come from Region5. Roughly a quarter of the national acid rain precursors are generated in the Region. About 90% of the nation's fresh surface water (20% of the world's) is stored in the Great Lakes. 12% of the Nation's agriculture is also in the Region.

Outcomes/Desired Results	***Regional Strategies***
Improve Fine Particulate Air Quality and Improve 8-Hour Ozone Air Quality **Measure:** By 2010, working with partners, improve air quality to healthy levels for 39 percent of the people who live in areas where the air does not meet national standards for fine particles in 2001 and for 60 percent who live in areas not meeting national standards for 8-hour ozone in 2001.[1,2]	Our Strategy is to: 1) Understand the extent of the 8-hour and PM2.5 nonattainment problem and by CY 2004 designate areas after receiving input from States and Tribes - A comprehensive monitoring network was deployed for PM2.5 (The 1-hour network was adjusted as needed for 8-hour ozone) 2) Work with States and Tribes affected to develop attainment strategies including needed controls by CY 2007 3) Work with HQ, States and Tribes to Implement national measures and any measures identified in the attainment plans. 4)While developing these plans, work with States, Tribes, Locals and communities to identify and implement early voluntary emission reduction measures. Fundamental to this strategy is assuring: 1) an effective State, Tribal and local grant program 2) an effective monitoring network and emission inventory supportive of designations and development of control measures 3) timely guidance and issue resolution 4) timely processing of State SIP and Tribal TIP submittals, including source-specific ones 5) Cooperative permit strategies are developed for PM2.5 and 8-hr Ozone to include: • An evaluation of states' current NSR SIP to determine if revisions are necessary and schedules to revise current SIP developed as appropriate; • Technical assistance to states to implement national permit guidance (i.e., transition policy) once developed;

Outcomes/Desired Results	*Regional Strategies*
	6) Reduce emissions of sulfur dioxide and oxides of nitrogen through trading programs. 7) Reduce emissions of Oxides of Nitrogen, Volatile Organic Compounds, Particulate Matter, and Carbon Monoxide from mobile sources and fuels. 8) Ensure real time ambient air concentration information is available for criteria pollutants of concern. 9)Pursue diesel retrofits and idling projects, Best Workplaces for Communities initiative and other voluntary measures to achieve early reductions, specifically targeting urban communities with most severe PM and Ozone issues. 10) An effective enforcement program targeted at securing largest emission reductions of PM fine and ozone precursors and emissions. 11) Effective use of SEPs to promote implementation of voluntary measures especially preferred SEPs including highly effective projects such as diesel retrofits (excluding school bus retrofits which are expected to have their own Congressional appropriation). Develop efficient means for companies to contribute to SEP projects. **Evaluation:** Number of States in Region where designations occurred on schedule. Number of States which submit control measures and plans on schedule. Status/progress toward NOx SIPs' reduction goals. Schedule for NSR SIP revisions are established; State permit issuance continues; permit guidance developed to ensure smooth transition for areas being redesignated. Were mechanisms developed for companies to make contributions to SEPs? Have companies contributed to these? Are projects identified as preferred SEPs being implemented especially diesel retrofit SEPs? **Measures:** • Ambient concentrations of ozone, measured against the 8-hour standard, and PM2.5. • Populations living in (and number of) areas measuring healthy air quality for 1-hour ozone and PM-10. • Number of ozone and PM 2.5 monitoring sites in Indian country. • Number of companies participating in the commuter choice program and correlating NOx, VOC, PM, CO and toxic emission reduction. • Tons of criteria pollutant and precursor emissions reduced through injunctive relief. • Tons of criteria pollutant and precursor emissions reduced through Supplemental Environmental Projects(SEPS). • Emissions reductions from voluntary projects such as diesel retrofits.
Real time information is available for criteria pollutants of concern to support public health and behavior changes.	Ensure Region 5 criteria pollutant of concern information is available to support public health and behavior changes by providing real time information systems and predictions. Measure: AQI is fully supported with Real Time data.

Outcomes/Desired Results	*Regional Strategies*
Reduce regional haze.	Work with Regional Planning Organizations and States and Tribes to develop long-term strategy for region.
Preserve and maintain healthy air quality in Carbon Monoxide (CO), Nitrogen Dioxide (NO), Sulfur Dioxide (S02), and Lead (Pb) areas. **Measure:** 0 % increase in population subjected to unhealthy CO, NO, SO2, and Pb air quality.	Support necessary monitoring network, effective permitting and enforcement in attainment and maintenance areas. Training conducted for states to address issues identified from permit program evaluation and/or permit review. **Evaluation:** Where CO, NO, SO2, and Pb monitors or subsequent modeling indicate an air quality violation has occurred, violation is quickly identified and the respective State is adopting/ implementing contingency measures according to SIP schedule.

Sub-objective 1.1.2: Reduced Risk from Toxic Air Pollutants. By 2010, working with partners, reduce air toxics emissions and implement area-specific approaches to reduce the risk to public health and the environment from toxic air pollutants.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

The National Air Toxics Assessment (NATA) indicates that air toxics are a concern nationwide and there are a significant number of urban areas in Region 5 which are at a higher relative risk. According to NATA, there are over 22 million people in Region 5 that live in counties with an estimated excess cancer risk greater than 5 in 100,000, and risk in localized areas in the counties can be significantly greater. Four of our 6 States rank in the top 6 for high relative risk by the Risk Screening Environmental Indicators (RSEI) model. These risks are due to a number of factors. The National Toxics Inventory indicates that Region 5 has the highest air toxics emissions in the nation at greater than 900,000 tons and the highest utility mercury emissions of all the regions at greater than 12 tons per year.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

There are more than 6,000 sources that report TRI emissions in Region 5 with greater than 200,000 tons per year of air toxics emissions. Region 5 has more than 10,000 sources affected by MACT standards. Urban air toxics emissions are estimated at greater than 300,000 tons per year in 1996 and diesel particulate emissions at greater than 90,000 tons per year. Mobile sources are also a concern in Region 5. VMT is estimated at almost 500,000 million miles per year and is expected to increase over time. Region 5 includes 90% of the nations fresh surface water, 20% of the world's surface freshwater, 14,719,000 acres of national forest, 1,267,000 acres of wilderness land and 1,132,000 acres of national park, lakeshore and scenic rivers. These sensitive ecosystems are affected by deposition of pollutants which has contributed to fish advisories in all 6 Region 5 States. In addition, international air toxics issues also affect Region 5 because of the borders that we share with Canada. In summary, region 5 has a large number of industrial sources and emissions, high mobile source emissions, significant land areas and ecosystems, and a large population being exposed to these emissions, including sensitive populations such as children and the elderly.

There are several elements necessary to successfully reduce the population's risk from air toxics: enforcement of MACT and other regulatory approaches, effective risk assessments, risk reduction through non-regulatory approaches such as voluntary reduction, outreach and education. Working towards integration of indoor, outdoor and mobile source approaches will be a significant improvement to risk assessment and mitigation efforts. Much of the information and tools available to characterize air toxics risks, determine corrective measures, and assess the programs success, need to be developed and refined. Pilot projects will assist by contributing to our knowledge base as well as reducing population risk. All of these activities will also contribute to building regional and state capacity and partnerships.

Outcomes/Desired Results	***Regional Strategies***
By 2010, EPA and its partners will reduce air toxics emissions and implement area-specific approaches to reduce the risk to public health and the environment from toxic air pollutants. **Measure:** By 2010, the States, locals, tribes and Region 5 will have the information and tools to assess toxics trends for all 6 of our states, 1 local air pollution control agency and at least 4 of our Tribal lands. Levels and trends are characterized not only across States and Tribes but also within communities.	Promote comprehensive and effective air toxics programs by: 1)building expertise in the Region, States and Tribes 2)developing needed assessment and characterization tools for purposes such as targeting mitigation, 3)conducting pilots, and other targeted risk assessments on a case-by-case basis to address both immediate health/risk questions and support tool development, 4) supporting quality air toxics data systems (TRI , RAPIDS, NTI, and NATA), 5)establishing and maintaining toxics ambient air monitoring networks, 6)implementing voluntary programs, particularly focusing in the near term, on diesel retrofit and idling reduction opportunities in urban areas as well as reduction opportunities in other areas, 7)delegating and/or otherwise ensuring implementation and enforcement of MACT, Part 61, section 111(d) and 129 standards, including providing implementation assistance to States and Tribes, as necessary, 8)using the MACT prioritization tool to select sectors for priority enforcement and compliance assurance, 9)prioritizing and directing investments in new monitoring through analysis and consideration of pilot city data and available relative risk indicators.

Outcomes/Desired Results	*Regional Strategies*
	10)ensuring high quality air toxics data by developing a regional lab protocol to allow for comparability. 11)utilizing the ambient air mobile monitoring laboratory to target future investments (through short term air toxics screening). 12)identifying neighborhoods with the most significant risks not already being addressed by existing programs and taking action in these areas(ie implementing the Community Air Toxic Regional Priority discussed in the "Overview of Region 5" chapter). **Evaluation:** The number of local/community air toxics assessments initiated and completed. The number of voluntary emission reduction projects initiated. Measures: • Tons of air toxics reduced from all stationary sources. • Tons of air toxics reduced from mobile sources. • Tons of air toxics reduced by implementation of MACT and area source standards. • Tons of Air Toxics reduced from enforcement efforts. • Tons of Air Toxics reduced from voluntary and SEP programs. • Toxics weighted emissions reductions. • National Air Toxics Assessment (NATA) • National Air Toxics Trends Sites (NATTS) • National Emissions Inventory (NEI)
"Virtually eliminate" mercury from the Great Lakes ecosystem. 50% reduction in mercury emissions and use by 2006.	Achieve mercury reductions through implementation of MACT standards, Clear Skies and through voluntary reduction efforts focused on specific sectors including the chlor-alkali industry, the scrap steel sector, and the dental sector. Measures: • Tons of mercury reduced from EGUs.

Objective 1.2: Healthier Indoor Air. By 2008, 22.6 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings.[3]

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Region 5 has the largest population of people living in counties with elevated radon levels, as compared to the other regions. Over 45 million people in Region 5 live in counties identified as Radon Zone Level 1 or 2, which is about 90% of its total population (USEPA SIRG estimate). Based on a 2001 CDC report, it is estimated that the prevalence of adult asthma in the U.S. is over 15 million, with almost 2.9 million

[3] The 1994 baseline is assumed to be zero for purposes of tracking the results of EPA indoor air programs because the number of Americans experiencing healthier indoor air prior to 1994 is unknown.

residing in Region 5. Cook County, Illinois, has one of the highest mortality rates from asthma in the country, with most deaths occurring in the city of Chicago. Based on 1994 national estimates, approximately 27% of homes with children aged six and younger currently allow smoking, affecting approximately 9-12 million children each year. With almost 20% of the nation's public schools in Region 5 (U.S. Dept of Education, 2001 statistic), a 1996 GAO survey demonstrated that over half of the Region 5 schools responding had reported at least one environmental condition as being unsatisfactory.

For the Home Environment, Region 5 ARD's Indoor Air Program (IAP) and its partners have been making gains on improving the indoor living spaces for its residents. Region 5 has the largest, most active radon program in the country, with over $2.6 million given out in 2003 for its state/tribal partners to focus on educating the public about radon's health impact, testing and mitigation practices. During 2002, almost 91,000 homes were tested for radon in R5, while almost 9,000 homes have been mitigated and over 4,000 homes have been constructed using radon resistant building practices. Over 1/3 of the pledges collected nationally for EPA's Smoke Free Homes Campaign have been collected in Region 5 (Sept 2003), with over 4900 email/phone pledges collected by Region 5 staff, its partners and the general public response.

The IAP has worked with its regional and national partners to achieve significant gains and participation in promoting healthier school environments. As of 2003 estimates, based on reports from our regional partners, well over 1700 of the Region 5 estimated 26,000 public and private schools (2001 Department of Education-based estimates) are implementing an Indoor Air Quality (IAQ) management plan consistent with USEPA's IAQ "Tools for Schools" management program. That is 1700 schools of the approximate 4800 schools (September, 2003) nationally that have been identified by EPA and its partners as fully or partially implementing an IAQ management plan consistent with EPA's Tools for Schools (TfS) program.

IAP supports the Office of Radiation and Indoor Air's (ORIA) efforts to achieve its IAQ objectives. This includes continued commitment to Asthma, Environmental Tobacco Smoke, Schools and Radon programs. In addition, Region 5 supports ORIA's focus in "Developing Areas", including Air Toxics, Large Buildings, Residential IAQ, Mold, and a focus on Sensitive Populations, as well as other emerging issues. IAP will continue to work with internal and external partners, as resources allow, while also recognizing our partners' constraints (often decreasing budgets). IAP staff also continue to partner internally across programs (such as with the tribal program), allowing additional leveraging of existing resources.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

Constraints to our program include Regional, State and Local staffing ability to address the broadening Indoor Air Quality (IAQ) concerns, budget constraints our partner and targeted areas (i.e., schools) are facing, and developing a comprehensive strategy that still manages to positively impact the indoor environments for the most number of people while still allowing to focus on sensitive populations and emerging issues.

Of the 62.4 million children in the U.S., 13.7 million reside in Region 5 states. One in 5 Americans (including adults) spend their time in schools. According to the 1996 Government Accounting Report, over half of the schools reported at least one environmental condition as being unsatisfactory, especially IAQ. In the same report, Region 5 schools stated that 86% of them needed to upgrade or repair on-site buildings to bring them up to good overall condition, while 47% reported unsatisfactory ventilation or IAQ.

Nearly 1 in 13 school-age children has asthma, and that rate is rising more rapidly in preschool-aged children than in any other group. Asthma is the leading cause of school absenteeism due to a chronic illness. The impact of asthma falls disproportionately on African-American and certain Hispanic populations and

appears to be particularly severe in urban inner cities. Data from our cities shows there is often significant asthma rates in the urban areas. For example, data collected by Chicago Asthma Consortium members on asthma prevalence has revealed that 16% of children surveyed in the Chicago public and Catholic schools stated that a doctor had diagnosed them with asthma. The numbers were slightly higher in public schools and in schools with a predominance of African-American students. Similar findings were found in a study of children in the Chicago Head Start program, where 14% of this group was found to have asthma. In Region 5, many of our numerous cities have similar problems.

Some emerging issues include: Grant Management in the Era of Competition; Integrating IAQ Science into Air Toxics Community Assessments; Cross-Programmatic Building-Based Support, which includes school environmental management systems (EMS) and other building system approaches (Goal 4), as well as supporting vapor intrusion concerns, and; Children's Health and Aging Initiative (Goal 4).

Outcomes/Desired Results	***Regional Strategies***
More of the nation's schools will adopt good IAQ management systems as a part of a multimedia approach to protect students and staff from all environmental contaminants. Measure: Nationally, by 2008, approximately 7.8 million additional students & staff will experience improved IAQ in their schools.* By 2010, 5% of R5 school districts will adopt an EMS approach to school environmental health (Goal 4).	IAP will partner with other programs, agencies & tribes, NGOs, and schools to: 1) assist in the implementation of IAQ TfS to older, urban & rural areas 2) educate on asthma, IAQ, TfS, pesticides, and toxics, 3) encourage participation in Energy Star, Clean School Bus USA, Sunwise, etc. 4) maintain effective grant program prioritizing stakeholder investment, environmental management system development and education. IAP will work on school-based EMS through the R5 Schools Network and Children's Health program. IAQ will continue to be one of the primary areas of concern for school EMS programs. **Evaluation:** Use of data available in national tracking system & survey of schools for IAQ management plans. EMS to be tracked by Children's Health Program.
More students with asthma and their families will be better educated about managing asthma triggers in their home environment. Decrease the number of children exposed to ETS in the home environment **Measure:** Nationally, by 2008, approximately 12.8 million additional people will be living in homes with healthier indoor air. These include people living in homes with radon-resistant features, children not being exposed to environmental tobacco	Region supports States' development of asthma plans and community based initiatives to educate children and families. Region will complement national initiatives by supporting outreach efforts. **Evaluation:** Use data available in national tracking system.

Outcomes/Desired Results	*Regional Strategies*
smoke, and asthmatics with reduced exposure to indoor asthma triggers.*	
More homes will be tested for radon levels; of those homes with high radon levels, more will be mitigated; new homes will be built with radon-resistant construction techniques. **Measure:** Nationally, by 2008, approximately 12.8 million additional people will be living in homes with healthier indoor air. (etc).*	Region will complement national initiatives by supporting outreach activities, and partnering with stakeholders to incorporate radon resistant features. **Evaluation:** Use data available in national tracking system.

* All tracking is done at the Headquarters level and will not necessarily be scalable to the Regional contribution to meeting the National goal.

Objective 1.3: Protect the Ozone Layer. By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet (UV) radiation, particularly among susceptible subpopulations, such as children, will be reduced.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Scientific evidence amassed over the past 25 years has shown that chlorofluorocarbons and hydrochlorofluorocarbons (refrigerants), halons, (fire-extinguishing agents), methyl bromide (a pesticide), and other halogenated chemicals used around the world are depleting the stratospheric ozone layer. As a result, more harmful ultraviolet (UV) radiation is reaching the earth,[4] increasing the risk of overexposure to radiation and consequent health effects, including skin cancer, cataracts, and other illnesses. More than a million new cases of skin cancer are diagnosed each year,[5] and more than half of all Americans develop cataracts by the time they are 80 years old.[6]

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[4]World Meteorological Organization, *Scientific Assessment of Ozone Depletion*, 2002. Available on the Internet at www.unep.org/ozone/sap2002.shtml.

[5]American Cancer Society Inc., *Cancer Facts and Figures: 2003*, No. 5008.03, 2003. Available on the Internet at www.cancer.org/downloads/STT/CAFF2003PWSecured.pdf.

[6]Prevent Blindness America, *Cataract Fact Sheet*, FS32, 2003. Available on the Internet at www.preventblindness.org/resources/factsheets/CataractsFS32.PDF.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

As a signatory to the Montreal Protocol on Substances That Deplete the Ozone Layer (Montreal Protocol), the United States is obligated to regulate and enforce its terms domestically. In accordance with this international treaty and related Clean Air Act requirements, EPA will continue to implement the domestic rule-making agenda for the reduction and control of ozone-depleting substances (ODS) and enforce rules controlling their production, import, and emission. This includes combining market-based regulatory approaches with sector-specific technology guidelines and facilitating the development and commercialization of alternatives to methyl bromide and HCFCs. EPA will strengthen outreach efforts to ensure efficient and effective compliance, and continue to identify and promote safer alternatives to curtail ozone depletion. EPA estimates that in the United States alone between 1990 and 2165, the worldwide phase-out of ODS will save 6.3 million lives from fatal cases of skin cancer, avoid 299 million cases of nonfatal skin cancers, and avoid 27.5 million cases of cataracts.[7]

Because the ozone layer is not expected to recover until the middle of this century at the earliest,[8] the public will continue to be exposed to higher levels of UV radiation than existed prior to the use and emission of ODS.

Recognizing this and the public's current sun-exposure practices, EPA will continue education and outreach efforts, such as the Sun Wise program, to encourage behavioral changes as the primary means of reducing UV-related health risks. The SunWise program focuses in raising awareness of children to the risks sunburns pose from ultraviolet radiation, stratospheric ozone depletion and other health risks. Region 5 participates in health fairs, workshops and other outreach events to promote the program. Information is distributed on action steps, children's activities, the school program, and presentations are made on ultraviolet radiation.

Outcomes/Desired Results	***Regional Strategies***
Minimize emissions of CFCs and other ozone depleting (ODS) substances from Region 5 and educate the public regarding UV-related risks.	Much of these emissions have been addressed through national rulemakings phasing out the use of CFCs. Region 5 will continue to identify sectors that continue to use or release ozone-depleting substances (ODS) and use education, compliance and enforcement tools to minimize emissions. Region 5 will also disseminate Sun Wise materials to inform the public regarding the UV related risks from sun exposure.

Objective 1.4: Radiation. Through 2008, working with partners, minimize unnecessary releases of radiation and be prepared to minimize impacts to human health and the environment should unwanted releases occur.

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[7]Advisory Council on Clean Air Act Compliance Analysis, Science Advisory Board, *The Benefits and Costs of the Clean Air Act 1990-2010, EPA Report to Congress*, 1999.

[8]World Meteorological Organization, *Scientific Assessment of Ozone Depletion*, 2002. Available on the Internet at www.unep.org/ozone/sap2002.shtml.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

The mining and processing of naturally occurring radioactive materials for use in medicine, power generation, consumer products, and industry inevitably generate emissions and waste. EPA is the primary federal agency charged with protecting people and the environment from harmful and avoidable exposure to radiation, and is the lead federal agency for responding to international emergencies involving radioactive materials. EPA also provides guidance and training to other federal and state agencies in preparing for emergencies at U.S. nuclear plants, transportation accidents involving shipments of radioactive materials, and acts of nuclear terrorism. EPA sets protective limits on radioactive emissions for all media–air, water, and soil–and we develop guidance for cleaning up radioactively contaminated Superfund sites.

Region 5's radiation program consists of two main components. The first component is lead by the Superfund program and involves Emergency Response and Superfund sites. This involves the identification and mitigation of radiation threats and radiological material. The Air and Radiation Division provides technical support as needed. The second component, housed in ARD, includes regulatory oversight of other Federal facilities, coordinating on Homeland Security issues, and providing the Region with the Radiation Safety oversight required by the Nuclear Regulatory Commission License, through the Health and Safety Office in Region 5.

Outcomes/Desired Results	***Regional Strategies***
Unnecessary releases of radiation minimized and should unwanted releases occur, impacts to human health and the environment minimized.	EPA provides national-level guidance on the risks posed by radioactive materials in the environment, including technical guidance for conducting risk assessments. The Region supports Headquarter's mission as it applies to the States and Tribes within Region 5. We will monitor for radiation, arrange for its mitigation, and work to conduct outreach as appropriate. We will also provide technical guidance, advice and outreach as needed to assure that EPA meets all public health and environmental obligations. Region 5 will participate with FEMA, States and other Federal Agencies in nuclear emergency response drills.

Objective 1.5: Reduce Greenhouse Gas Intensity. Through EPA's voluntary climate protection programs, contribute 45 million metric tons of carbon equivalent (MMTCE) annually to the President's 18 percent greenhouse gas intensity improvement goal by 2012. (An additional 75 MMTCE to result from the sustained growth in the climate programs are reflected in the Administration's business-as-usual projection for greenhouse gas intensity improvement.[9])

[9] Overall, EPA's climate protection programs will prevent 185 MMTCE annually by 2012, up from 65 MMTCE in 2002. Of the additional 120 MMTCE that will be prevented annually by 2012, 75 MMTCE will result directly from the sustained growth in many of the climate programs and are reflected in the Administration's business-as-usual projection for GHG intensity improvement; 45 MMTCE will contribute to the attainment of the President's 18 percent GHG intensity improvement goal. The strategic targets outline the path for preventing the

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

Region 5's Air and Radiation Division (ARD) has been working with the Office of Air and Radiation to achieve greenhouse gas reductions and the Office of Research and Development to disseminate information on the potential consequences of climate variability and change. It is important to understand some of the *potential* impacts of climate change in the Region and the current status of greenhouse gas emissions in the Region.

According to Great Lakes Regional Assessment Group for the US Global Change Research Program, "It is very likely that the US will get substantially warmer. Temperatures are projected to rise more rapidly in the next one hundred years than in the last 10,000 years. It is also very likely that there will be more precipitation overall, with more of it coming in heavy downpours. In spite of this, some areas are likely to get drier as increased evaporation due to higher temperatures outpaces increased precipitation. Drought and flash floods are likely to become more frequent and intense."[10] Some of the potential impacts in the Midwest with respect to climate change include: reduction in lake and river levels, exacerbation of heat-related stresses due to urban heat island effect in cities, changes in natural ecosystems; and an increase in some agricultural yields.

Emissions of greenhouse gases result from many sectors: energy, industrial processes, agriculture, land-use change and forestry, and waste. Carbon Dioxide from fossil fuel combustion- the major source of energy in our homes, in commercial buildings, in industry, and for transportation —is the largest source of greenhouse gas emissions in the United States. Carbon dioxide emissions from fossil fuel combustion in Region 5 constitutes 20% of the national total CO_2 emissions from fossil fuel combustion on a million metric tons of carbon equivalent basis(MMTCE). National average greenhouse gas emissions by sector (emission from electrical generation is attributed to the sources using the electricity): Industry (29%), Transportation, (27%), Residential (19%), Service Industry(Buildings16%), and Agriculture (8%)[11].

There are many voluntary programs aimed at reducing greenhouse gas emissions through initiatives that increase energy efficiency (Energy Star); develop clean energy solutions (Combined Heat and Power Partnership and Green Power Partnership); capture and use methane gas (Landfill Methane Outreach, Natural Gas STAR, Agriculture-Based Programs), and minimize emissions of high global warming potential gases (Voluntary Aluminum Industrial Partnership, HFC-23 Emission Reduction Program, Perfluorocarbons (PFC) Emission Reduction Program with Semiconductor Industry, Sulfurhexafluoride (SF_6) Emission Reduction for Electric Power Systems and Magnesium Industry). Furthermore, there are two voluntary programs aimed to reduce greenhouse gas emissions in the transportation sector: Commuter Choice Leadership Initiative and

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120 MMTCE by 2012.

[10]Climate Change Impacts on the United States, The Potential Consequences of Climate Variability and Change, Overview, National Assessment Synthesis Team, US Global Change Research Program.

[11] Inventory of US Green House Gas Emissions and Sinks: 1990-1999. April 2001. EPA-236-R-01-001.

SmartWay Transport Partnership. It is important to note that there are ancillary air quality benefits to reducing energy usage including reduction in NOx, SOx, particulate matter, and air toxics along with CO_2.

The ENERGY STAR label has become the national symbol for energy efficiency. Encouraging consumers to purchase ENERGY STAR labeled products, working with building owners and managers to improve the energy performance of their facilities, and encouraging homeowners to improve the overall energy efficiency of their homes are the main initiatives to further drive energy efficiency and reduce greenhouse gas emissions. Region 5 continues to provide education and outreach programs on climate change, including the potential impacts and the voluntary actions the public and businesses can take to reduce greenhouse gas emissions. Public education and customer service are integral elements of our program in which we respond to inquiries on global warming and energy issues. Furthermore, we conduct presentations, participate in exhibits, and deliver education seminars aimed to increase awareness of energy efficiency opportunities and breakdown barriers to enhancing energy performance in facilities. The priority for Region 5's program is to educate the K-12 school sector on the Energy Star performance rating tool and to address barriers to energy improvements. This effort is also incorporated in the voluntary Indoor Air Quality Tools for Schools program and in partnership with Federal, State and local organizations.

Outcomes/Desired Results	***Regional Strategies***
Greenhouse gas intensity significantly reduced. Measure: Millions of Metric Tons of carbon equivalent prevented from the building, industrial and transportation sectors.* (*This data is collected by HQ.)	Support and promote Energy Efficiency and Clean Energy programs. Work with Federal, State and local partners to market Energy Star Portfolio Manager focusing outreach to K-12 schools. Benchmark energy performance in buildings. **Measures:** By 2010, 500 buildings will be benchmarked using the Energy Star Performance Rating Tool.

Goal 2 - Clean and Safe Water

Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Region 5's Water Division has collaborated with the states to identify a set of long-range water goals:

1. *All people in Region 5 served by public water supplies will have water that is consistently safe to drink;*
2. *All waters in Region 5 will support fish populations with safe levels of contaminants;*
3. *Designated swimming waters in Region 5 will be swimmable;*
4. *All waters in Region 5 will support healthy biological communities; and*
5. *The quantity and quality of critical aquatic habitat in Region 5, including wetlands, will be maintained or improved.*

The Regional goals advance national goals 2 and 4, and are supported by environmental indicators and milestones to assess progress. Where appropriate these will be highlighted in the detailed discussion of the approaches that the Region will be pursuing to achieve the water objectives.

One of the most significant challenges facing the states in Region 5 as they look to implement the core water programs is the budget shortfalls they all face. While the Minnesota Pollution Control Agency appears to be in improved shape in this regard, other states still face extreme hardship. As a result, gains in permit issuance rates and TMDL production that we have seen in past years are threatened and may be difficult to maintain. Similarly, state drinking water programs are suffering under the combined weight of multiple new rules and budget cuts.

Though not reflected in great detail in the following discussion, the Region continues to work with the states to identify resource enhancement options and opportunities to streamline programs. We recently helped Indiana improve the funding mechanism for its drinking water program. In the last several years, Wisconsin's drinking water program has had resource reductions and we are currently working with the State to identify temporary disinvestments. By implementing some of the streamlining ideas that Region 5 and the states jointly identified, Minnesota has been able to make great strides in reducing its permit backlog. We will continue to collaborate with all states across all programs to help them overcome their budget problems. At the same time, we will continue to participate in rulemaking and program discussions to ensure that our rules and program initiatives are workable for our state partners.

In partnership with the states, we continue to pursue innovative approaches to promote water quality improvement on a watershed basis. Over the coming years, under an "Accountability Pilot" we developed with the states, we will be closely tracking and accounting for the watershed projects and restoration work that the states, our agricultural partners and local stakeholder groups undertake that improve watershed health. We believe that in accounting for these watershed efforts along with the increasing rate of TMDL production on the part of the states, we will have a fuller picture of the effectiveness of our efforts to protect and improve water quality. Finally, we will continue to

develop and nourish our partnership with the agricultural community in Region 5 through ongoing participation in NRCS state technical committee meetings and other forums. By sharing information on our priority water quality issues, including source water protection, to inform Farm Bill conservation program funding decisions and complementing those funds with water resources we believe we will accelerate the rate of watershed improvement.

The Regional strategies identified below support commitments made in Environmental Performance Partnership Agreements (EnPPAs) with terms that currently include FY '05. For those not covering FY '05, the Regional Plan will drive the discussion for the next round of EnPPA negotiations. While the Tribal Environmental Agreements are written more generally, they still align with the strategies identified in the Regional Plan.

All strategic targets/strategies identified within Goal 2 are Region 5 Water Division's, except where noted.

Objective 2.1: Protect Human Health. Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.

Subobjective 2.1.1: Water Safe to Drink - By 2008, 95 percent of the population served by community water systems will receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection.

Current State/Challenges

In calendar year 2003, over 95% of the population served by CWSs in Region 5 were in compliance with health-based rules that were in effect prior to 1998. This percentage is based on the information reported to the SDWIS database from the water systems. Compliance with health-based rules can be affected by water systems that do not report whether or not they are in compliance. For Region 5, 88.7% of the CWSs have not had any significant monitoring violations in 2003. While this Regional percentage is good, the individual state monitoring compliance numbers vary with the low being 81%. Non-community water systems, of which Region 5 has approximately 40% of the universe of these smaller water systems, have similar Regional compliance rates with health-based rules and monitoring. The monitoring compliance rate also varies from state to state though the range is wider than that of the community water systems. Our challenge is to get as much of the drinking water data reported as possible. We are working with individual states to increase their compliance rates with funding, compliance assistance and enforcement.

State primacy rules are up to date for adoption for all of the Region 5 states. While all of the states are dealing with serious budget issues, they have been especially severe in Wisconsin. We continue to work with all of the state drinking water programs to focus their resources on high priority program areas such as reducing contamination levels and maintaining water system inspection capacity.

States have made significant progress in completing source water assessments. Illinois and Minnesota have completed assessments for all public water systems. The remaining states are in the advanced stages of the assessment completion process. Attention is now shifting from source water assessment completion to using the assessments to begin locally based source water protection efforts. Source water protection is not a Federally mandated program.

Drinking water is accounted for, to a limited extent, in the Clean Water Act monitoring and assessment programs. Two of the six Region 5 states currently assess for attainment of drinking water designated uses, Illinois and Indiana. These two States have reported some drinking water data for lakes indicating that 74,564 acres were fully meeting the use - 74% of the total acres assessed. In addition, 25,602 acres were partially meeting the designated use - over 25% of the total acres assessed; and 480 acres were not supporting the use - less than 0.5% of the total acres assessed. Illinois assessed 70 lakes for drinking water designated use based on ambient nitrate and/or triazine data and all of these lakes were fully or partially meeting the designated use. Indiana's assessment is based on the need to apply algicide for taste and odor caused by algae since this is additional treatment to prepare the water for drinking. Twelve out of thirteen lakes assessed by Indiana were fully or partially meeting the designated use.

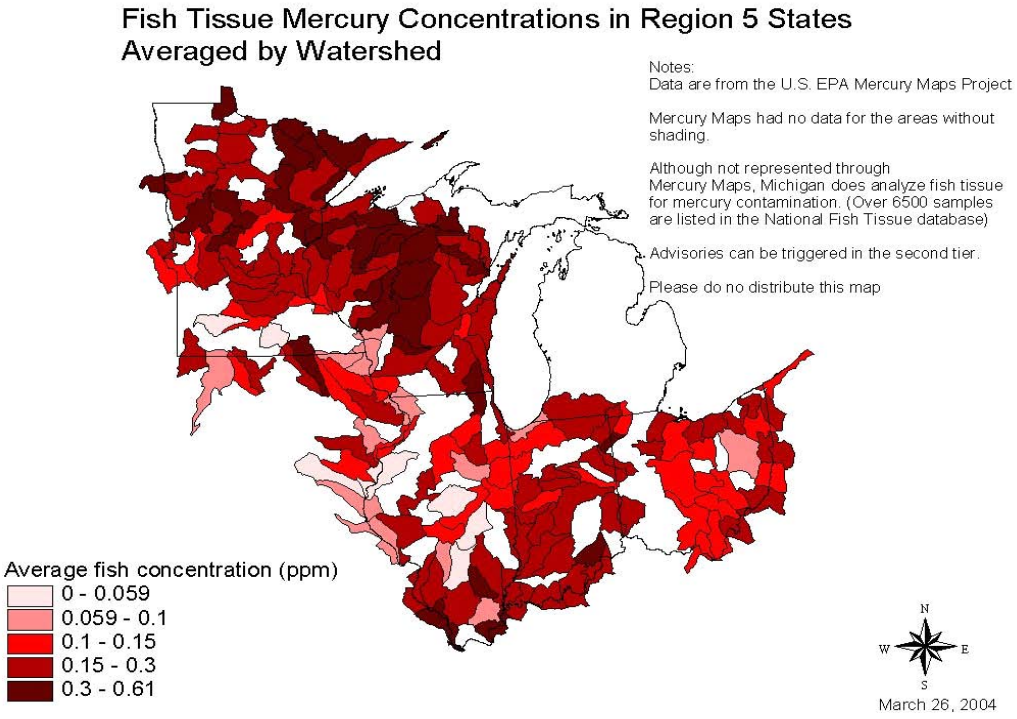
Outcomes/Desired Results	*Regional Strategies*
Subobjective 2.1.1: ***Water Safe to Drink***	**Region 5 Goal:** ***All people in Region 5 served by public water supplies will have water that is consistently safe to drink.***
By 2008, 95 percent of the population served by community water systems will receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection. (*OW Strategic Plan 2.1.1*)	Implement the public water supply program for Tribal systems and provide additional technical assistance, e.g. operator certification and waiver development and evaluation programs, to improve capacity and compliance. – By 2008, 95% of the population served by community water systems in Indian Country will receive drinking water that meets all applicable health-based drinking water standards.
R5 Indicator: % of people served by public water systems that meet health based standards.	Work with HQ and state partners to identify and correct causes of data quality problems to ensure that SDWIS/Fed data accurately reflects the status of public health protection. – Develop a joint EPA-State plan with performance milestones, to resolve any remaining major data quality problems. – By 2008, Region 5 data quality will be substantially improved as reflected in the 2009 triennial Data Reliability Report.
Regional Strategic Targets: By FY05, 95% of all our Drinking Water systems will be in compliance with health-based standards; 90% of community and transient non-community water systems will be in compliance with monitoring requirements; 90% of non-transient non-community water systems will be in compliance with monitoring requirements for acute health risks; and 90% of non-transient non-community water systems will be in compliance with monitoring requirements for chronic health risks, for all regulations promulgated through 1994. *(R5 WD/States Shared Goal)*	Work with State partners to compile, analyze, and use data to identify the biggest/highest risk public health problems and set program and enforcement priorities to increase compliance, with an emphasis on the States with the lowest compliance rates. Develop and implement appropriate approaches to increase capacity, for Wisconsin and Illinois. Direct EPA involvement and identify and employ other innovative approaches to complete SWAs for Tribal PWSs. – By FY05, 60% of tribal community water systems will have a completed SWA. – By FY05, 20% of susceptible tribal community water systems will be implementing a source water protection program.
By FY08, 95% of CWS will meet health based standards for	Identify and provide needed tools and assistance to support source water protection efforts. – By 2008, 75% of source water areas for community

Outcomes/Desired Results	*Regional Strategies*
those requirements with which systems need to comply as of December 2001. *(OW Strategic Target C)* By 2008, 80% of CWS will meet health based standards for those requirements with a compliance date of January 2002 or later (Stage 1 DBP, IESWTR, LT1ESWTR, arsenic.) *(OW Strategic Target D)* By FY05, all States will implement a program to promote protection of drinking water sources. By FY05, 10 % of community water systems will be implementing source water protection programs. By FY05, EPA will implement a program to promote source water protection programs on Tribal lands where assessments are completed. By 2010, 98% of Class I, II, and III wells will be in compliance with permit or regulatory requirements. By 2010, 90% of large capacity cesspools and motor vehicle waste disposal Class V wells will be closed or under some form of control (permit or enforcement action). By 2008, all community water	water systems will have source water protection strategies in place. – By 2008, 60% of source water areas for community water systems will have implemented some aspects of their source water protection strategies. Identify point source discharges to source waters and target our enforcement, assistance, and oversight efforts to ensure that they are controlled appropriately to protect drinking water sources. – There will be no more than a 5% backlog of permits for sources that discharge into source water areas. Identify UIC wells and other sources of pollution to source waters and will target our enforcement, assistance, and oversight efforts to ensure that they are controlled appropriately to protect drinking water sources. – 50% of all identified motor vehicle waste disposal wells located in source water protection areas in UIC Direct Implementation States and Indian Country will be closed or permitted (calculated annually). – Inventory Class V motor vehicle disposal wells, large capacity cesspools, and industrial wells in source water protection areas, in 30% of Counties in Direct Implementation States by September 2005, and in 100% of Indian Country by September 2007. By 2008, 100% of Class V Motor Vehicle Waste Disposal wells are closed or permitted. Identify and provide needed tools and technical assistance to improve community water system capacity to conduct vulnerability assessments, develop emergency response plans, and determine what security enhancements they need. – By FY05, community water systems will have tools needed to conduct desk-top exercises to test their emergency response plans, and to enhance their security procedures.

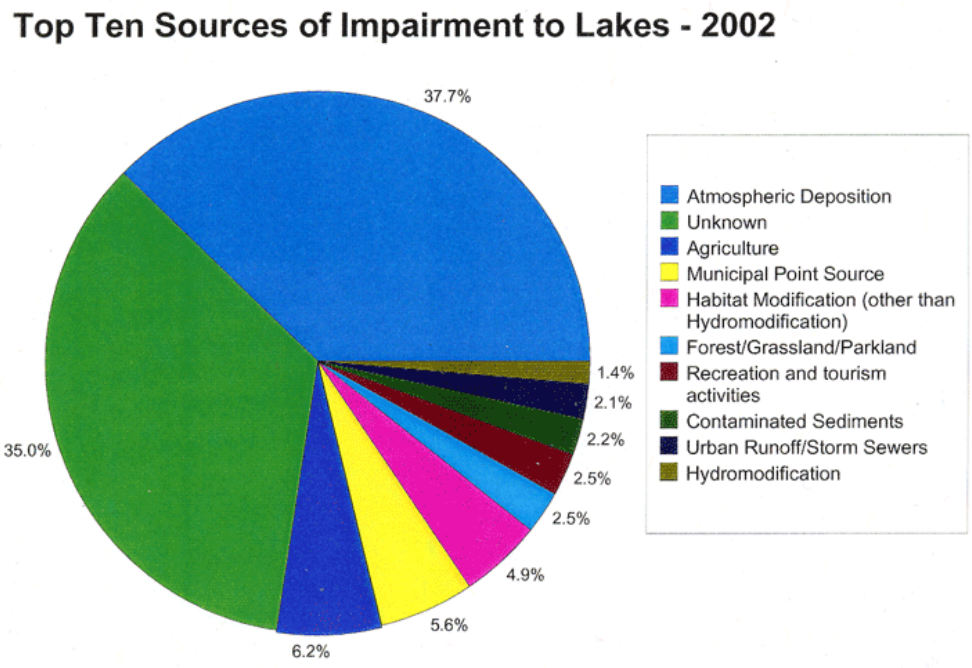
Outcomes/Desired Results	*Regional Strategies*
systems that serve 3301 or more persons will have appropriate security in place, based on the needs revealed by vulnerability assessments and by developing Emergency Response Plans.	

Subobjective 2.1.2: Fish and Shellfish Safe to Eat - By 2008, improve the quality of water and sediments to allow increased consumption of fish and shellfish.

Current State/Challenges: Roughly 25% of the water body impairments in the Region are based on fish consumption advisories. The most common contaminants causing the advisories are PCBs and mercury. Of the two, mercury is the more common, necessitating statewide consumption advisories in all Region 5 states (see map below). PCBs remain a problem in the Great Lakes and some inland waters (statewide for rivers in Indiana), but in contrast to mercury levels in fish, the levels of PCBs have shown dramatic declines over the years in response to the PCB ban of the 1970s and sediment remediation actions.



Mercury contamination continues, largely the result of air deposition, and correcting the mercury contamination problem in the Region requires that we think beyond watersheds to look at regional or national approaches to limit emissions (see chart below).



See Chapter 1 for additional discussion of Region 5 challenges as they relate to methylmercury in fish.

Outcomes/Desired Results	***Regional Strategies***
Sub-objective 2.1.2: ***Fish and Shellfish Safe to Eat*** By 2008, improve the quality of water and sediments to allow increased consumption of fish and shellfish. (*OW Strategic Plan 2.1.2*) **R5 Indicator:** Concentration of selected contaminants in the tissue of targeted fish species; HG and PCBs for all 6 States **Regional Strategic Targets:**	**Region 5 Goal:** ***All waters in Region 5 will support fish populations with safe levels of contaminants***. In partnership with States and Tribes, develop innovative approaches to reducing mercury loadings from all media, using appropriate tools that focus on pollution prevention rather than treatment technologies. – By 2006, develop a mercury phase down plan and have formal agreements with at least two States to either implement the phase down plan, develop mercury TMDLs or implement some other alternative. – By December of 2005 approve two regional (i.e., northern and southern regions of MN) TMDLs for Minnesota, addressing 1174 impaired water bodies. – By 2005 the Regional guidance for mercury pollutant minimization plans for municipal wastewater treatment

Outcomes/Desired Results	*Regional Strategies*
By 2006, air emissions of mercury from man-made sources in Region 5 will be reduced by 50 percent from 1990 National Emission Inventory levels. *(R5 ARD)* By 2008, the reported levels of mercury in sewage biosolids (from major POTWs that land apply biosolids) have declined by 25% from a 2000 baseline. By FY 2005, 1% of the water miles/acres identified by States or Tribes as having fish consumption advisories in 2002 will be cleaned up to allow for increased consumption of safe fish. *(OW Strategic Target H)* By FY05, in 98.4% of lake acres and 51% of river miles, fish tissue will be assessed to support waterbody-specific or regional consumption advisories, or a determination that no consumption advice is necessary. *(OW PAM # 28)*	plants will be implemented throughout Region 5. – By 2006 conduct pretreatment audits where mercury and other monitored bioaccumulative chemicals have increased to determine sources and rectify problem. – EPA funding and technical assistance will, by 2005 and annually thereafter, result in increased membership in Hospitals for a Healthy Environment (H2E), increased membership in the National Waste Minimization Partnership Program (NWMPP), increased membership in the Federal Electronics Challenge compared to the prior year. *(R5 WPTD)* – EPA funding and technical assistance for the proper use or disposal of electronic waste components will by 2005 accomplish: partnerships with 5 Wisconsin target areas to hold mercury thermometer collections; in cooperation with Michigan, mercury collections in 5 target areas; in cooperation with Illinois, 1 household hazardous waste collection. *(R5 WPTD)* Achieve significant reductions in mercury emissions in Region 5 states, with percentage reductions matching or exceeding nationwide goals, through implementation and enforcement of all maximum available control technology standards, and other federal emissions standards. *(R5 ARD)* – By 2005, complete an analysis that identifies the federal emissions standards that reduce mercury emissions and the sources that these standards apply to in Region 5, and that assesses the opportunities to gain further reductions through enhanced enforcement and compliance assistance. By 2006, develop and begin to implement an enforcement and compliance assistance strategy to maximize mercury reductions. – Work to ensure that by the end of 2006 each of the Region 5 states submits an approvable plan to implement the interstate air quality rule (IAQR), which requires reductions in emissions of sulfur and nitrogen, leading to mercury reduction co-benefits. Work with states to integrate IAQR plans with a utility mercury reduction strategy and with state plans for implementing the utility mercury reduction rule (which will not be required until after 2006). In the absence of approvable state IAQR plans, optimized for the needs of individual states, EPA will be prepared to implement

Outcomes/Desired Results	*Regional Strategies*
	a federal plan. This milestone assumes the finalization of the interstate air quality and utility mercury reduction rules. Build, through targeted funding, technical assistance, etc., adequate sampling and analytical capacity in States, Tribes and others to fully implement the fish contaminant monitoring programs needed *to* support fish consumption advisory programs, to characterize contaminant trends and to inform the public. – EPA and the States will cooperatively publish a plain language report on the contaminant levels in fish across Region 5, describing what we know and don't know about trends. – By December 2005, EPA and the Tribes will have evaluated current monitoring efforts and determined how data on water bodies in Indian Country (e.g., data on mercury in fish tissues, sediments, and/or the water column) can/should be used in tracking trends.

Subobjective 2.1.3: Water Safe for Swimming - By 2008, restore water quality to allow swimming in not less than 5% of the stream miles and lake acres identified by states in 2000 as having water quality unsafe for swimming.

Current Status/Challenges: Another common impairment in Region 5 results from pathogen contamination of swimming waters: 60% of the Region's lake acres were assessed for swimming and of those 65% were considered safe for swimming. Reported beach closings are increasing in Region 5, but that trend reflects a mixed message. On one hand we are encouraged that more communities and states are monitoring the quality of their swimming waters and using that information to protect the health of their bathers; but on the other, the elevated levels of pathogens often indicates an improperly treated wastewater discharge. Region 5 has over 40% of the nation's CSOs, an undetermined number of SSOs, and rapidly growing urban areas that need to better control storm water runoff. Often they discharge directly into a water used for swimming or into the watershed that drains into a swimming water. All of these wet weather pollution sources represent potential sources of the pathogens that cause beach closings, and represent a priority for Regional action.

See Chapter 1 for additional discussion of Region 5 challenges as they relate to swimming use impairment problems at Great Lakes beaches and inland swimming waters.

Outcomes/Desired Results	*Regional Strategies*
Sub-objective 2.1.3: ***Water Safe for Swimming*** By 2008, restore water quality to allow swimming in not less than 5 percent of the stream miles and lake acres identified by states in 2000 as having water quality unsafe for swimming. (*OW Strategic Plan 2.1.3*) **R5 Indicator:** % of assessed river and stream miles, lake acres, and Great Lakes shoreline miles designated for swimming that are meeting that use % of river and stream miles, lake acres, and Great Lakes shoreline miles designated for swimming that have been assessed. **Regional Strategic Targets** By 2010, 90% of monitored, high priority Great Lakes beaches will meet bacteria standards for more than 95% of the swimming season. By 2008, five priority impaired Great Lakes beaches support swimming at least 95% of the days of the beach season. By 2010, 1% of the inland waters listed by states in 2002 as impaired for recreation use will be improved to support that use.	**Region 5 Goal:** ***Designated swimming waters in Region 5 will be swimmable.*** Target inspection, permitting, enforcement, oversight, and assistance efforts, including state capacity building to reduce or eliminate swimming impairments at five high priority Great Lakes beaches. – By July 2004, EPA in consultation with GLNPO, States and local beach managers will identify the top five impaired high priority Great Lakes beaches (or clusters of beaches, such as the Chicago lakefront beaches, which may make sense to group as a beach for our involvement) for federal involvement or assistance. – By FY05, federal watershed-based action and assistance will be underway to remedy impairments and control CSO, SSO, storm water, CAFO, land application of biosolids and on-site systems, as appropriate, at 5 priority impaired Great Lakes beaches. – By FY05, 100% of CSO permits in Region are consistent with the national CSO Policy. *(OW PAM IV-GL-3)* – By FY05, 35% of all CSO communities in Region 5 will have schedules in place to implement approved LTCPs. *(OW PAM #36)* – By FY06, all Region 5 states will have adopted, for the Great Lakes, recreational water quality criteria for E.coli and enterococci, or Region 5 will have promulgated the criteria for the State. *(OW PAM #33)* In four priority urban rivers, (Cuyahoga, Milwaukee, St. Joseph and Chicago Rivers) target inspection, permitting, enforcement, oversight, and assistance efforts, including state capacity building, to reduce or remedy wet weather discharge problems that cause swimming use impairments. – By July 31, 2004, EPA will have a plan for each of the 4 rivers defining the actions and schedules, including roles and responsibilities of EPA and the states, for control of CSOs and other wet weather sources in each urban river, and have buy-in from the states. – By FY08, all CSO communities in the four river systems will have schedules in place to implement approved LTCPs. *(OW PAM # 36)* Recognizing their importance to both pathogen impairments

Outcomes/Desired Results	*Regional Strategies*
	and other water quality problems across the Region, develop regional approaches to storm water runoff and discharging on-site sewage systems to guide efforts to correct water quality problems caused by these sources. – Work with the states, using vehicles such as workshops, to characterize the water quality issues associated with storm water discharges and discharging on-site systems (e.g., the scale, geographic extent/clustering, association with particular activities/businesses, etc) and to identify potential regional roles, opportunities/targets, and approaches to pursue in cooperation with the states. – Develop and reach agreement with the states on strategies to guide our investment and involvement in storm water control and control of discharging on-site sewage systems, and will amend this strategic plan to define specific environmental outcome measures that reflect its implementation. Encourage and assist States in their development of decentralized management programs to correct failing on-site sewage systems and prevent future failures and correct water quality problems caused by these sources. – By 2005, host a Decentralized Forum and participate with each state, when invited, in state decentralized conferences on management and funding approaches for on-site sewage systems.

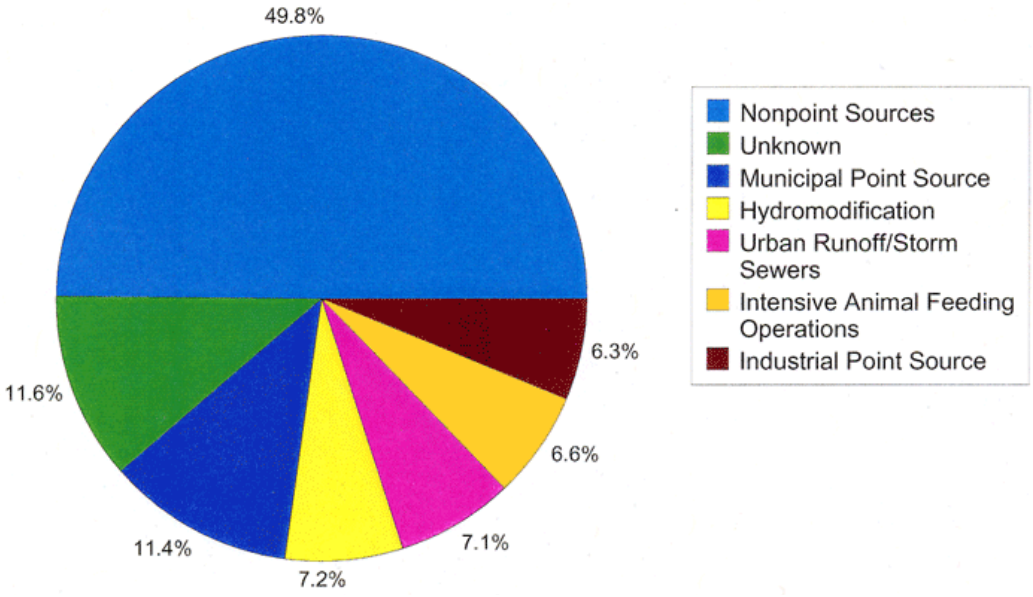
Objective 2.2: <u>Protect Water Quality</u>. Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.

Subobjective 2.2.1: Improve Water Quality on a Watershed Basis: By 2008, use both pollution prevention and restoration approaches, so that, in 600 of the Nation's watersheds, water quality standards are met in at least 80 percent of the assessed water segments and in 200 watersheds, all assessed water segments maintain their quality and at least 20 percent of assessed water segments show improvement above conditions as of 2002.

Current State/Challenges: Of the almost 370,000 river and stream miles in Region 5, 37% were assessed for aquatic life use in 2002. Approximately 50% of these assessed miles are meeting the use. Of the 5.8 million inland lake acres in Region 5, 26% were assessed for aquatic life use in 2002. Approximately 70% of the assessed lake acres are meeting the use.

For rivers and streams assessed for aquatic life use, about 50% are impaired due to non-point sources. Such issues as nutrients, siltation, habitat alterations, and other related issues are among the most common causes of water quality problems sited for both rivers/streams and lakes. Agriculture and other nonpoint sources are predominant sources for impairments in streams. Agriculture is very important to the economy and environment in Region 5 and our plan reflects a strong commitment to partnerships with Agriculture to improve water quality.

Top Sources of Impairment
to Rivers and Streams - 2002



The aquatic life use assessment numbers do not provide a complete picture of water quality problems within Region 5 waters and watersheds. Other uses, such as swimming and fish consumption, must also be assessed. Many waterbodies in the Region are impacted by mercury contamination of fish tissue and pathogens that are not reflected in aquatic life use impairments. (As discussed under Subobjective 2.1.2) As additional monitoring is conducted to look at sediment, nutrients, and pathogens we are likely to identify additional areas that are not meeting water quality standards.

Note that the information presented for most states focuses on only a limited subset of waters and usually this cannot be extrapolated to determine the status of all waters in a state or in the Region. One exception in Region 5 is Indiana which can now make state-wide estimates of attainment based on a random sampling design for aquatic life use of streams. States also have differing water quality standards, monitoring methods, and assessment protocols that can make direct comparisons of assessment results difficult. Trends are not easily developed as states typically do not assess all their waters over a two year time frame and thus report on different subsets of waters in each reporting

cycle. Information exists that shows water quality improvement in specific watersheds as a result of the implementation of watershed programs (e.g., Spring Creek, WI; Minnesota River, MN), but that information cannot be extrapolated to suggest a Regional trend. Data are also not typically collected to reflect status or trends on an 8-digit watershed scale, so determining attainment with the subobjective will not be statistically accurate and may not be consistent from reporting cycle to reporting cycle. Results for each reporting cycle will rely heavily on which waters within a watershed were selected for monitoring, what parameters were collected, etc. Furthermore, experience has shown that achieving water quality improvements on a watershed basis can take years. Changes noted over the short-term need to be interpreted cautiously as they may reflect environmental and monitoring method variability rather than real positive trends. Ohio EPA's IBI, for example, has a 4-5 point variability associated with its results.

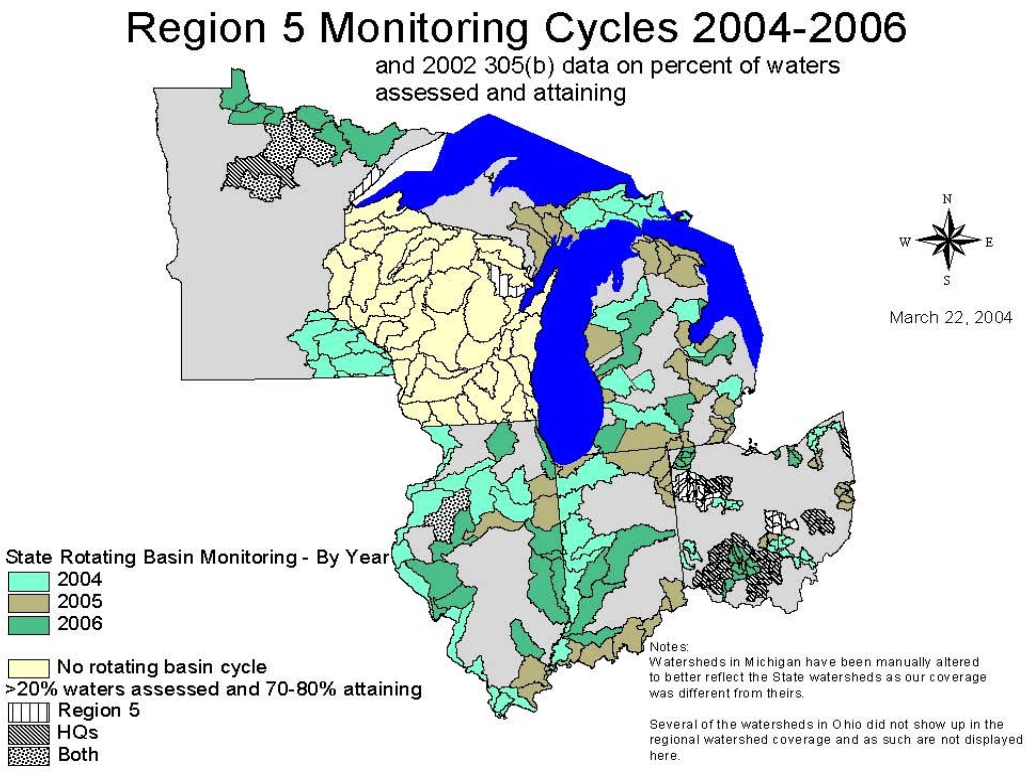
In addition, we share in the stewardship of the Upper Mississippi River and are committed to helping solve the nutrient problems impacting the hypoxia zone in the Gulf of Mexico. *See Chapter 1 for additional discussion of Region 5 challenges as they relate to the hypoxia problem in the Gulf of Mexico.*

Within our WQS program, the development of comparable state bio-assessment programs and bio-criteria is a top priority so that we can directly measure the biological health of the aquatic resources. This work will have a greater impact than some of the routine reviews of state WQSs, and we are proposing to focus our technical assistance to the states on bio-assessment/bio-criteria development, and reduce our assistance to the States on more routine criteria, standards issues and monitoring issues..

One of our most significant challenges in achieving subobjective 2.2.1 is posed by the way that the subobjective is expressed. Achieving the subobjective as it is stated and the targets for FY 05 and 08 will be extremely difficult. Although the Strategic Plan does not clearly identify the data source for tracking progress toward the goal, Region 5 assumes this will be state biennial Integrated Reports (or 305(b) reports). In FY 05 the regional target is entirely beyond our control because the data that the states use to assess water quality in 2004 water quality reports, which will form the basis for determining whether we achieve the target, have already been collected. These reports will be submitted on April 1 of this year. Other information that might be used - depending on the ability of states to compile and assess it between April 2004 and 2005 - will be collected this summer however, in most cases, monitoring plans are already established or are nearly so. To presume that we could identify watersheds at any scale, let alone 8-digit HUC scale, where work could be targeted and environmental results achieved in time to measure yet this year is unrealistic. Even if this year's monitoring shows improvements in an assessed water, often the states will average one year's data with several preceding years to ensure that blips are not taken as trends. At best, we will be fortunate and state monitoring cycles will have sampling locations where past projects have yielded improvements. If that happens we may achieve our FY 05 target, but it would be disingenuous for us to suggest that it is a result of any watershed restoration/pollution control work put in place to achieve the subobjective; rather, it may be suggestive that past actions have been effective.

Although the FY 08 target is still several years out, similar concerns apply. In particular, it is doubtful that actions now targeted to any particular watershed will yield water quality results that

will satisfy the objective, especially at an 8-digit HUC scale, in the time afforded. Additionally, we need to contend with the reality that five of our six states operate their intensive monitoring programs on a rotating basin cycle (and Wisconsin is considering the merits of returning to such a schedule). Some of the data needed to identify changes in water quality in selected watersheds may not be available on more than a five year schedule. (See map.)



Our concerns with the subobjective notwithstanding, we are committed to promoting watershed protection and restoration activities, as identified in the table below, that we are confident will improve water quality on a watershed basis in a meaningful timeframe. In particular we want to highlight some of the more significant strategies that the region will be pursuing toward this end:

First, in partnership with the states we have been promoting investment in and streamlining of base programs, in particular the NPDES and TMDL programs. We expect the rate of TMDL development to continue to increase and the NPDES backlog rate to remain low or decrease. We are also promoting timely state upgrades to their CAFO programs to reflect the new federal regulations. Combined with regional projects to promote innovative approaches such as water quality trading, these investments will ensure that effective base state regulatory programs are in place to promote watershed protection.

Second, we are leading a region-wide initiative with the states to improve monitoring programs and fill data gaps on under-assessed waters. We are promoting state investment in bioassessment techniques and encouraging their participation in the Great Rivers EMAP and

Large Rivers REMAP to build the tools they can apply to gauge watershed health. We continue to support the long term investments that states have made to organize and sequence their monitoring programs along watershed lines. The success of the EPA /State partnership to improve monitoring will ensure that we have the data to target our programs at the most important problems and assess the benefit of our work on water quality.

Third, we continue to invest Regional resources (staff and travel) to partner with the agricultural community in each state. We expect that this investment will help to inform the agricultural program decisions on investment of Farm Bill conservation program resources, helping to ensure that some of those resources are targeted at a watershed scale to correct the sources of important water quality problems. Likewise, we are working to ensure that the state CWA s.319 programs are integrated into this process, complementing Farm Bill resources to support watershed improvements.

Finally, under our "Accountability Pilot", we are collaborating with the states on a pilot project to better account for work that is ongoing to meet water quality standards in impaired watersheds. Recognizing that watershed plans and projects, farm-scale conservation practices, TMDLs, etc. all weigh in to improve water quality on a watershed basis, under the Accountability Pilot we and the states are making commitments to promote and track a range of actions and their progress toward meeting water quality standards. While these actions are underway and achieving annual milestones, we will focus TMDL development efforts on other impaired waters. We expect that we will see and be able to report on successes at a stream reach or small (not 8-digit HUC) watershed scale. We will also coordinate with OW to participate in and integrate our Accountability Pilot into projects currently under consideration in HQ (e.g., Adaptive Management System to Restore and Protect Water Quality on a Watershed Basis: Two State Pilots; and A Management System Concept for Achieving the Water Quality Sub-objective)

The Regional strategies identified below support commitments made in EnPPAs with terms that currently include FY '05. For those not covering FY '05, the Regional Plan will drive the discussion for the next round of EnPPA negotiations. While the TEAs are written more generally, they still align with the strategies identified in the Regional Plan.

Outcomes/Desired Results	***Regional Strategies***
Sub-objective 2.2.1: ***Improve Water Quality on a Watershed Basis***	**Region 5 Goal:** ***All waters in Region 5 will support healthy aquatic biological communities.***
By 2008, use both pollution prevention and restoration approaches, so that: - in 600 of the Nation's watersheds, water quality standards are met in at least 80	Develop or enhance the criteria used to gauge if, and to what degree, nutrients and sediments are stressing the aquatic biological communities in Region 5 waters. – By the end of FY08, 3 states have adopted EPA-Approved nutrient criteria for fresh water (rivers/streams, lakes and reservoirs). *(OW PAM #40)*

Outcomes/Desired Results	*Regional Strategies*
percent of the assessed water segments; and - in 200 watersheds, all assessed water segments maintain their quality and at least 20 percent of assessed water segments show improvement above conditions as of 2002. (*OW Strategic Plan 2.2.1*) **R5 Indicator:** % of assessed river and stream miles, lake acres, Great lakes acres and shoreline miles and wetlands acres meeting aquatic life use criteria and biocriteria targets, as well as other parameters used by States in making assessments, e.g. nutrient information. % of river and stream miles, lake acres, Great Lakes acres and shoreline miles, and wetland acres that have been assessed. **Regional Strategic Targets** All waters supporting aquatic life use as of 2000 will continue to meet that use and those that are of exceptional quality (e.g., exhibit IBI scores significantly higher than the state threshold for meeting/not meeting) will remain so. By 2009, 150 assessed stream miles in Region 5 that were not meeting aquatic life use in 2000 show improvement above the conditions found in 2000.	Establish effective partnerships with agriculture in each state to collaboratively solve water quality problems caused by nonpoint source pollution. – EQIP funded projects will target at least one impaired watershed in each state. – By FY05, at least 10 watershed based plans supported under state NPS (s. 319) programs since the beginning of FY02 have been substantially implemented, covering at least 26 [stream] miles. *(OW PAM #49)* – Develop and track effective watershed plans and TMDLs through "Accountability Pilot." In cooperation with States and other partners, promote innovative, market-based approaches, such as trading and watershed permitting, to increase the velocity of nutrient loading reductions. – By 2006, the Great Miami River trading pilot will have demonstrated trades between the City of Dayton and upstream nonpoint sources. – By 2008, nutrient farming/wetlands restoration projects by TWI and others in the Illinois River system will demonstrate the potential efficacy of the practice for removing nutrients (nitrogen and/or phosphorus) from the river. Prioritize the watersheds within the Upper Mississippi River basin by their anthropogenic contributions of critical nutrients to the system and target our regulatory and assistance tools to reduce loadings. – Complete an assessment and a prioritization of all of the watersheds within the Upper Mississippi River basin, based on anthropogenic nutrient (both nitrogen and phosphorus) and sediment loadings, and map the results. – Iowa, with support from Regions 5 and 7, will convene and lead a sub-basin team to facilitate communication, coordination and cooperation between the states on nutrient reduction efforts and to assess the water quality effects of these efforts. Partner with agriculture, the states, other Federal agencies and NGOs to leverage resources and tools and accelerate the

Outcomes/Desired Results	*Regional Strategies*
By 2010, decrease loadings of critical nutrients from agricultural, industrial and urban sources in targeted watersheds in the Upper Mississippi River basin by 30% [rolling 5-year average compared to 1980-1996 average] *(supports OW Subobjective 4.3.5)* By 2008, all priority Alkylphenol Ethoxylate (APE) compounds (currently NP,NP1EO,NP2EO) that are present in amounts great enough to represent a significant risk to aquatic life or human health will have been identified in Region 5. By 2010, APE discharges to waters are controlled to environmentally acceptable levels and actions to reduce the impact of other emerging chemicals will be undertaken on a priority basis. By 2015, no new introductions of invasive species cause biological use impairment By 2009, state assessments of shared interstate waters will reach the same conclusions regarding attainment of uses. By 2009, all States are comprehensively assessing rivers and streams every 5-10 years and can make statistically	adoption of voluntary management practices in the agricultural community, industry and municipalities to reduce nutrient loadings. – In partnership with MNRG agencies, collaborate with TNC and others to develop and in 2005 implement a program to monitor the effect of wetlands restoration efforts along the Illinois River (Emiquon) on nutrient loadings to the system. – By 2006, voluntary "BASF-like" industry-led point source innovations reduce nutrient discharges to the Upper Mississippi River system in one priority industrial category. – By 2007, Farm Bill EQIP funding and CWA 319 funding is being directed to projects in targeted watersheds to reduce nonpoint source nutrient loadings. Monitor waterbodies for APEs where they are most likely to occur and where they do occur in unacceptable concentrations, recommend a course of action from among a range of management responses, including regulatory (e.g., criteria development) and voluntary actions, that will satisfactorily reduce or eliminate their impact on the environment. – By June 2006, EPA Region 5 with the States and other partners will identify where alkyl phenol ethoxylates are likely to occur in unacceptable concentrations in Region 5. – By June 2006, identify and recommend the most appropriate management response(s) to reduce the impact of APEs in Region 5. In cooperation with Federal, State and other researchers, identify newly emerging chemical threats to human health and aquatic life in order to rapidly and effectively respond to reduce their impacts. – By July 2005 and annually thereafter, in cooperation with the emerging contaminants team, report to management on any newly emerging contaminants, and their recommendations for follow-up study or control options. – By 2006, develop an effluent screening protocol to identify emerging chemicals in effluent which have the potential to cause adverse effects to aquatic organisms. The Region 5 Water Division and the Great Lakes National

Outcomes/Desired Results	*Regional Strategies*
valid statements of the status of aquatic life use for these systems. States will also have developed appropriate methods and reference conditions for lakes and wetlands for use in assessments.	Program Office will work with other federal agencies through MNRG and the states to promote state and local invasive species early detection monitoring and introduction prevention/response programs. *(OWOW strategy)* – By 2007, in partnership with MNRG federal agencies, establish a process to streamline federal review and approval of local rapid response plans for invasive introductions/threats. Work with Region 5 states and other agencies to promote and establish tiered aquatic life uses for all water body types. – Outstanding disapproval of Ohio's biocriteria narrative will be resolved. Work with states and other agencies on projects to develop numeric and narrative biocriteria (and criteria for stressors such as nutrients and sediments) that are linked to tiered uses (and adopted into standards.) Work with the states to develop Level 4 Biological Monitoring Programs. – EPA and the States will have identified each State's current biological monitoring program level and actions will be underway to improve the program to the next level. Prioritize and advance state monitoring program enhancements to better assess and characterize the quality of the Region's waters. – By FY04, all Region 5 state monitoring programs will be assessed as adequate or on an EPA/State negotiated schedule for meeting those elements. *(R5 WD/States Shared Goal)* – By 2006, all States will establish a scientifically valid baseline of the status of aquatic life use attainment for all wadeable streams using appropriate bioassessment techniques or be on a negotiated schedule to establish such a baseline. *(R5 WD/States Shared Goal)* – By FY05, 5 states in Region 5 will have adopted and begun to implement a comprehensive monitoring strategy [including a state approach to putting data into STORET] consistent with the March 2003 "10 elements guidance". *(OW PAM #44)* – By FY05, 4 states in Region 5 will provide integrated assessments of the condition of their waters consistent

Outcomes/Desired Results	*Regional Strategies*
	with sections 305(b) and 303(d) 0f the CWA and EPA's integrated assessment guidance. *(OW PAM #45)* – Support Great Rivers E-MAP Project. – Work with Tribes to develop reporting format and encourage use of STORET. – Support Large Rivers methods comparison and assessment projects – Work with States and CABB on implementation of the wadeable streams survey – Work with States to develop/revise and implement monitoring strategies that meet the Elements of a State Water Monitoring and Assessment Program guidance. Work with States and Tribes to reduce point source impacts to water quality – Maintain strong NPDES permitting programs and reduce NPDES backlog through streamlining and innovation. *(OW PAM #59)* – Provide technical assistance for Tribes on NPDES and Phase II storm water implementation – Effectively manage infrastructure assistance programs through effective management of SRFs. – Effectively manage infrastructure assistance programs through State oversight/audits.

Evaluation:

The Water Division is using a problem solving approach and systems model in which monitoring and evaluation are key elements. This approach complements the National Water Program's Program Assessment Framework which describes how a range of program management and evaluation activities are expected to support the effective assessment of water program performance. Specifically:

- We are using data assessment and GIS systems to target priority work, measure progress, and report on progress on a quarterly basis. A number of performance charts for each of the key program commitments have been developed and are posted outside the Director's Office. These are updated quarterly, and provide a current picture of how well the Division is implementing its Plan.
- The States implement most of the Water programs in Region 5 and effective communication with them is essential to program evaluation. Each month the Division Director conducts a

conference call with all six State Water Directors to discuss critical program issues and progress against targets. Additionally, the Division Director and Associate Director hold monthly calls with each individual State Water Director and key staff to focus on specific areas of performance, so that problems can be anticipated and corrected before the end of the fiscal year.

- Performance Agreements for each of the Water Division managers have been linked directly to the Water Strategic Plan. At mid-year and end-of-year, the management team conducts a self-assessment to measure progress. Individual performance reviews with the Division Director provide further opportunity for dialogue.
- The Water Management Team conducts an annual retreat to revisit its Plan, considering progress made, and makes adjustments as needed to strategies, milestones and activities.

Goal 3 - Land Preservation and Restoration

Preserve and restore the land by using innovative waste management practices and cleaning up contaminated properties to reduce risks posed by releases of harmful substances.

Objective 3.1: Preserve Land. By 2008, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper management of waste and petroleum products at facilities in ways that prevent releases.

> **Subobjective 3.1.1: Reduce Waste Generation and Increase Recycling**. By 2008, reduce materials use through product and process redesign, and increase materials and energy recovery from wastes otherwise requiring disposal.
>
> **Subobjective 3.1.2: Manage Hazardous Wastes and Petroleum Products Properly.** By 2008, reduce releases to the environment by managing hazardous wastes and petroleum products properly.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

> ***Underground Storage Tank (UST) Program*** - There are currently over 117,900 active USTs in Region 5. Since 1998, practically all USTs (almost 100%) have installed the equipment required under the UST regulations. However, we are still getting new releases and spills. The problem is related to the fact that a large percentage of the UST owners are not maintaining or operating the equipment properly. So, USEPA is attempting to implement a new compliance measurement call "significant operational compliance" (SOC) for both leak detection and release prevention (spill, overfill, and corrosion protection). After measuring SOC for two years, data show that 76% of active USTs in Region 5 are in SOC with release prevention and 64% are in SOC with leak detection.
>
> ***RCRA Permitting Program*** - All of the Region 5 states have attained the 2003 GPRA RCRA goal of 74% for their combined permitting universe under control. As of March 2003, there were 200 out of 214 facilities in the operating permit universe under control and 219 out of 282 post-closure universe facilities under control in Region 5. Therefore, the combined Region 5 permitting universe is currently 84% under control. Two Region 5 states–Minnesota and Wisconsin–have all their operating and post-closure universe facilities under control. In addition, Illinois has all its operating universe facilities under control.
>
> ***Nonhazardous Solid Waste and Hazardous Waste Minimization Programs*** - One of the ways Region 5 hopes to reduce persistent, bioaccumulative and toxic (PBT) chemicals is by implementing a sector-based approach focusing on lead (Pb) and naphthalene generators. The intent is to involve all RCRA programs (permitting, corrective action, enforcement and compliance assistance, waste minimization, etc.), other media programs (TSCA, FIFRA, EPCRA 313), and states in this effort. Part of the strategy is to promote participation in the National Waste Minimization Recognition Program to these generators. The Region will also continue to promote hospital participation in the Hospitals for a Healthy Environment (H2E) program in an effort to reduce mercury. We will also continue to promote increases in safe hazardous waste recycling. Continuing in FY 2003 and beyond, we will be reviewing the processes and programs utilized by Region 5 states to clean up and remediate pesticide spills at facilities that handle the mixing, blending, loading, and unloading of agricultural chemicals. We will be developing a summary of existing state programs, with

recommendations which may describe opportunities for USEPA to support the cleanup of such facilities.

Region 5 will continue to respond to ever-increasing requests from Region 5 states and citizens for assistance on all non-hazardous waste streams. For example, approximately 35% of citizen tips, controlled correspondence, and requests for compliance/technical assistance fall under the Subtitle D category. The movement of municipal solid waste from Canada to landfills in Michigan, the disposal of animal carcasses infected by chronic wasting disease, and questionably managed construction and demolition debris facilities are recent examples of the many new issues that are appearing more frequently. State directors from the Regions 5 and 7 states have formed the Upper Midwest States Solid Waste Summit specifically to address the increasing complexity of nonhazardous solid waste issues. Meanwhile, Region 5 will continue to target four industry sectors for waste reduction and recycling: health care (hospitals), metal casting, construction/demolition, and electronics.

The region is an active participant in the Resource Conservation Challenge (RCC). Our ongoing Regional activities to address electronic and hospital wastes, identify and promote beneficial uses for certain industrial wastes, and the management of scrap tires are consistent with the goals of the RCC. Several RCC "clusters" have been established for the waste streams mentioned above. Region 5 is the lead for the Industrial Waste and Schools clusters, and actively participates on several others. One project currently underway involves an inventory and GIS mapping of all remaining scrap tire stockpiles in Michigan, Indiana, Ohio, Pennsylvania, and New York, and to develop a best practices guide for stockpile cleanup in the Great Lakes Basin. Finally, to encourage the states to participate in the RCC, we have offered each state a $75,000 grant to support activities related to the RCC. All six Region 5 states have submitted RCC proposals that are being approved.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

Underground Storage Tank (UST) Program - We are seeing low operational compliance rates in spite of the fact that almost all USTs have installed equipment required under the regulations. Inconsistent and inaccurate measurement of operation compliance is a contributing factor. We plan to implement the new significant operational compliance tool developed by a USEPA/state workgroup to gather more accurate compliance data. From this data we should be able to implement more effective tools to address noncompliance.

RCRA Permitting Program - The permitting universe size varies from state to state. As a result, some states have made greater progress than others in terms of the percentage of accomplishments (facilities "under control") to date. Additional resource pressures are felt by many states who are losing experienced staff due to state-offered early retirement, reduced resources, and decentralized programs.

Nonhazardous Solid Waste and Hazardous Waste Minimization Programs - 1) All nonhazardous solid waste streams, not just municipal solid waste–particularly those of the most concern to our stakeholders, e.g., construction and demolition debris, scrap tire piles, industrial wastes, illegal dumps, and animal carcasses infected by chronic wasting disease (CWD). 2) Implementation of the Resource Conservation Challenge (RCC) for many of the targeted waste streams and chemicals. 3) Support existing and develop new measurement systems to appropriately evaluate program effectiveness, GPRA goals attainment, and track environmental results.

Outcomes/Desired Results	*Regional Strategies*
<u>Subobjective 3.1.1</u> ***Nonhazardous Solid Waste and Hazardous Waste Minimization Programs:*** 1. Resource conservation RCRA activities along with source reduction/reuse/recycling programs are robust and fully funded. 2. Nonhazardous solid waste facilities and sites are managed in such a way that harmful releases to the environment are prevented. **Measures:** 1. Percentage increase in recycling of nonhazardous solid waste. 2. Nonhazardous solid waste generation rate maintained at no more than 4.5 pounds/person/day.	1. Provide technical and compliance assistance to state/local solid waste contacts as well as broker state/local waste management issues to national forums for consideration and resolution (e.g., disposal of animal carcasses infected by chronic wasting disease). 2. Promote elements of the Resource Conservation Challenge. 3. Promote Greening of the Government Executive Orders. 4. Promote voluntary initiative and partnership programs that emphasize source reduction, reuse, and recycling. 5. Participate in national and regional efforts to improve source reduction/reuse/recycling data collection and measurement. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
Waste minimization is integrated into the base RCRA program activities (permitting, corrective action, enforcement, and compliance assistance) and non-regulatory/voluntary activities to best achieve reductions in the 30 targeted chemicals. **Measures:** 1. Percentage reduction in generation of priority list chemicals from 1991.	Through 2008, WPTD will promote the National Waste Minimization Partnership Program to Region 5 facilities, select specific sectors/targeted chemicals for particular emphasis, host forums/workshops on the targeted chemicals for interested stakeholders, and promote hazardous waste recycling activities. **Evaluation:** Region will work with national program to develop a regional evaluation plan.

Outcomes/Desired Results	*Regional Strategies*
<u>Subobjective 3.1.2</u> ***Preventing Hazardous Releases from RCRA Facilities:*** Increase the number of permit accomplishments while maintaining a good working relationship and sharing information with the states. **Measures:** Percentage of RCRA hazardous waste facilities with permits/permit renewal or other approved controls.	1. Provide assistance to the states. Specifically, use Regional expertise and resources to work with states that have larger workloads, particularly in specialized areas like combustion. 2. Reduce the burden on regulated RCRA facilities through the delisting process while ensuring that wastes are still managed under the Subtitle D program. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
Preventing Releases from Underground Storage Tank Systems: 1. Increase the number of facilities in significant operational compliance with leak detection and prevention requirements. 2. Reduce the annual number of new confirmed releases. **Measures:** 1. Number of facilities in significant operational compliance with leak detection and prevention requirements. 2. Annual number of new confirmed releases is reduced.	1. Provide support to state UST programs and strengthen partnerships among all stakeholders to reduce releases to the environment through cooperative agreements, STAG and project grants, technical assistance, and training. **Evaluation:** Region will work with national program to develop a regional evaluation plan.

Objective 3.2: Restore Land. By 2008, control the risks to human health and the environment by mitigating the impact of accidental or intentional releases and by cleaning up and restoring contaminated sites or properties to appropriate levels.

Subobjective 3.2.1: Prepare for and Respond to Accidental and Intentional Releases. By 2008, reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our nation's capability to prepare for and respond more effectively to these emergencies.

Subobjective 3.2.2: Clean Up and Reuse Contaminated Land. By 2008, control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse.

Subobjective 3.2.3: Maximize Potentially Responsible Party Participation at Superfund Sites.

Through 2008, conserve Superfund trust fund resources by ensuring that potentially responsible parties conduct or pay for Superfund cleanups whenever possible.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Emergency Preparedness and Response/Homeland Security - In FY2002, we hired eight additional On-Scene Coordinators (OSCs)–some of whom had specialities in chemical, biological, and radiological response–bringing our total number of OSCs to 35. In recent years, we have also purchased additional field response equipment and developed the capability to support hazardous material/terrorism response at special national events (e.g., Olympics, MLB All-Star Game, etc.). In FY2003, we opened a response office in St. Paul, Minnesota, and are working on opening an office in Des Plaines, Illinois that will bring our total to six response offices throughout the Region. The Des Plaines office will also serve as a backup to the downtown Chicago office in the event there is an attack on the city. We have also enhanced or developed our Emergency Operations Center (EOC) capability in the Chicago, Des Plaines, and Grosse Ile, Michigan, offices. For approximately the past seven years, we have conducted advanced Level A training twice a year for OSCs, along with chemical, biological, and radiological training, and have participated in tabletop and full-scale field exercises with federal, state, tribal, and local agencies to enhance our preparedness to respond to emergency events.

Superfund and Oil Spill Removal Response - Over the past five years, there has been an increasing trend in the number of Superfund removal response sites completed each year (from 45 in FY1998 to 61 in FY2002). There has also been an increase in the number of more complex and costly removal sites. The number of lead, mercury, and sediments sites, in particular, has increased in recent years, possibly due to more awareness from news stories covering the cleanups. In addition, as state budgets become tighter, we are being asked to address more sites that the states cannot fund. During this same timeframe, the number of oil spill responses has remained within a range of 24 to 28 cleanups per year, with a spike of 36 cleanups in FY1999.

Oil Spill Program - The number of inspections to determine compliance with the spill prevention, control, and countermeasure (SPCC) regulations is dependent on the amount of funding received each year and competing priorities. Recently, the number of facilities inspected has remained fairly constant at around 50 per year. At the time of inspection, very few facilities are in full compliance; however, with the Region's assistance, most of these facilities ultimately are brought into compliance. Even so, since the universe of facilities is unknown and the number of facilities inspected is a small percentage of the likely universe, this number should not be extrapolated to assume that the same percentage of facilities are in compliance throughout the entire region.

Superfund Site Assessment - As of October 2003, the Region had completed assessment work at 88% of the sites in the CERCLIS database (6,982 out of 7,920 sites, per the SCAP-15 report). There are currently about 350 sites in the site assessment workload. About 25 new sites are added to the workload each year, with a slight trend towards larger, more complex sites being referred in recent years due to bankruptcies and other economic conditions.

Superfund Remedial - Region 5 contains 284 (approximately 19%) of the 1518 national priorities list (NPL) sites in the country. Of these, 246 sites have human exposure under control (out of a baseline of 276 sites) and 186 sites have contaminated ground water migration under control (out of a baseline of 244 sites), while 220 (equivalent to 77%) have reached construction completion and 57

(20%) have been deleted from the NPL, thereby controlling or eliminating long-term risk at the sites. The number of construction completions over the past 10 years has ranged from 29 in FY1995 to 5 in FY2003. The annual number of construction completions has significantly declined in recent years and will total 10 or less per year through at least FY2007. This decline is due to the fact that relatively few new sites were added to the NPL in Region 5 during the 1990s. Nevertheless, Region 5 led the nation in construction completions from FY1992 through FY2002, with the percentage of sites completed in Region 5 now standing at 77%, compared with the other nine regions collectively averaging 54%. We project that over 90% of our NPL sites will have achieved construction completion by the end of FY2007.

Within the NPL and Superfund Alternative Site (SAS) universe, Region 5 has a larger proportion of sediments sites than other regions due to the presence of the Great Lakes. Sediment sites typically fall into the "mega-site" category, making them more complex and more costly to clean up than other NPL sites.

RCRA Corrective Action - The RCRA corrective action program is currently focusing its efforts on the 284 high-priority GPRA baseline facilities. There are approximately 1,600 facilities subject to RCRA corrective action, including the most difficult GPRA baseline facilities, which have not been addressed, and final cleanup has occurred at only a small fraction of the regulated facilities. Of the 284 high-priority facilities, human exposure to toxins is under control at 175 facilities and toxic releases to ground water are under control at 155 facilities.

Leaking Underground Storage Tank (LUST) Program - As of March 2003, there were more than 98,000 confirmed releases from USTs in Region 5. Cleanup has been initiated at about 95% (93,800) of the sites and cleanup has been completed at approximately 67,000 sites. This leaves a cleanup backlog of about 31,000 sites or 32%, which is equal to the national backlog. Our goal is to reduce the cleanup backlog by 50% over the next five years.

Superfund Enforcement - The percentage of remedial actions started at NPL sites that are PRP-lead has ranged from 67% in FY1998 to 100% in FY2001 and FY2003. While there is no trend over these five years, Region 5 has exceeded the previous goal of 70% PRP-lead sites every year since FY1999.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

Emergency Preparedness and Response/Homeland Security - Additional resources will be needed over the next several years in order to fund the additional OSCs and emergency response (ER) equipment necessary to satisfactorily respond to a catastrophic incident.

Superfund and Oil Spill Removal Response - 1) The scope of the removal portion of the Superfund program has been increasing in recent years: the more the program is asked to do, the more people ask of it. The increase in the amount of training and exercises in recent years has also demanded more time from managers and staff that would otherwise be spent directly on cleanups. Due to these increased demands on the program, we can no longer respond to all sites brought to us and must prioritize what we can do with the available resources. 2) Funding received from the Coast Guard-managed emergency portion of the Oil Spill Liability Trust Fund (OSLTF) is not sufficient to address all discharges that impact or threaten navigable waterways. 3) USEPA and the Coast Guard sometimes disagree on cleanup-related issues. We need Headquarters to be more assertive in resolving these differences and include the regions more in these discussions.

Oil Spill Program - Agency-appropriated funds are not sufficient to address the preparedness, prevention, response infrastructure, and enforcement portions of the oil spill program. For example, if more funding were available for inspections and compliance assistance, we would be better able to assist more facilities in achieving compliance.

Superfund Site Assessment - 1) Due to the national Urban Smelter Initiative, lead smelter sites are a high priority in the Region for the site assessment program. 2) Decreases in the site assessment budget in recent years have made it increasingly difficult to complete site assessment work.

Superfund Remedial - The Superfund remedial program needs to ensure that it maintains an appropriate balance each year between the number of sites initiating remedial investigations and the number of sites reaching construction completion. This is difficult to do with the current limited level of resources and Headquarters emphasis on achieving construction completions. In addition, if funding remains below anticipated needs, resources will need to be shifted from the Pipeline Operations budget to the Remedial Action allowance in order to achieve construction completion targets. This will put a further strain on the overall budget.

Because Region 5 has a large percentage of NPL sites that are construction complete, we also have a greater number of sites that are ready for state takeover of site operations and maintenance (O & M). Due to recent state budget shortfalls, we are concerned about our states' ability to take over the O&M phase. Several states in the region have raised this concern.

RCRA Corrective Action - All states in Region 5 are authorized to implement the RCRA corrective action program. The remaining facilities without environmental indicator (EI) determinations are the most complex or administratively difficult. Without successful years from the states, the Region is unlikely to meet GPRA goals. The major need for state RCRA corrective action programs for FY2003 and beyond is increased funding. Base federal funding has not increased in over ten years. Extramural funds from Headquarters decreased 22% this year, which means that the Region has less funding to support the RCRA corrective action program through contract support. Another problem the Region is facing is ensuring that all non-GPRA high-priority RCRA facilities are also addressed.

Leaking Underground Storage Tank (LUST) Program - Barriers that may make it difficult to achieve the 50% cleanup backlog objective include: 1) inadequate staffing levels due to state budget problems and "flat" federal funding, 2) an increasing number of recalcitrant or insolvent owner/operators, which leads to a more resource-intensive and time-consuming enforcement process, 3) inadequate financial responsibility or no state cleanup fund that means no resources to start remediation, and 4) an increasing number of difficult sites that slows the pace of cleanups.

Superfund Enforcement - No problems identified to date.

Outcomes/Desired Results	***Regional Strategies***
<u>Subobjective 3.2.1</u> ***Emergency Preparedness and Response/Homeland Security:*** Emergencies are responded to in a manner that quickly addresses short-term risk and minimizes long-term risks to human health and the	1. Increase resources (e.g., staff, equipment, facilities) available to respond to emergencies. 2. Improve responders' knowledge and skills in emergency response.

Outcomes/Desired Results	*Regional Strategies*
environment. **Measure:** Capability to coordinate and respond to at least one large-scale emergency within the Region, or assist Headquarters or other regions with one or more catastrophic emergencies.	3. Develop and coordinate response capabilities with other federal agencies, including integrating Regional programs and activities with those in the Office of Homeland Security; other regions; and state, tribal, and local governments. **Evaluations:** 1. After each classic emergency response, the Region will informally evaluate if the staff, equipment, facilities, and coordination were adequate, and make adjustments accordingly. If any catastrophic events occur, Headquarters/OSWER will conduct a formal evaluation and issue a report on the response action, including recommended improvements. 2. Each year, the Agency's Core ER evaluation process will evaluate the Region's emergency response readiness.
Superfund and Oil Spill Removal Response: Eliminate or control human health and environmental risks from oil spills and Superfund removal sites. **Measure:** Number of cleanups completed.	1. Identify and prioritize sites, or discharges that impact or threaten navigable waterways. 2. Work with state agencies to make full use of all available federal and state response resources, including those of responsible parties (RPs)/potentially responsible parties (PRPs). 3. Direct or monitor removal actions. **Evaluation:** In FY2005, the SFD will perform an analysis of what removal work needed to be done in recent years, what funding the Region received and how it was used, what work was not able to be accomplished, and any adjustments needed.

Outcomes/Desired Results	*Regional Strategies*
Oil Spill Prevention: Decrease the number of oil discharges which impact or threaten the waters of the U.S. **Measures:** 1. Change in the number of discharges from oil facilities from FY2000 to FY2006. 2. Change in the volume of oil released from facilities from FY2000 to FY2006. –NOTE: While we would like to use this measure, it could be very difficult to collect the data, which also would be very inaccurate. We include the measure here for potential future consideration, but we will not be measuring this during the FY2004-FY2006 cycle.	Use a combination of inspections, compliance assistance, exercises, planning, and enforcement to ensure that facilities are in compliance with SPCC and facility response plan (FRP) requirements, and that responders are prepared to respond. **Evaluation:** In FY2005, the Region will evaluate the impact of the various prevention and preparedness program activities, and determine if any activities are more effective than others in achieving compliance.
<u>Subobjective 3.2.2</u> ***Superfund Site Assessment:*** Priority sites are identified and referred to the appropriate program for cleanup. **Measures:** 1. Number of sites in site assessment backlog. 2. Time from site discovery to final assessment decision.	1. Communicate regularly with states on CERCLIS lists, site work, and priorities, including review reports of state investigations to screen for potential need for federal action. 2. Work closely with states to screen sites out of CERCLIS by using all available data. 3. Combine assessments when appropriate to accelerate decisions, using field screening methods whenever possible. 4. Track site assessment work in CERCLIS to ensure reassessments are not performed unnecessarily on the same site. 5. Ensure site assessment data in CERCLIS is accurate and complete. 6. Minimize the time needed to get to final assessment decisions. 7. Work closely with the RCRA program to communicate decisions on site deferrals/referrals. **Evaluation:** In FY2005, the Region will analyze how long it takes to reach a Superfund final assessment decision and what can be done to shorten this timeframe.

Outcomes/Desired Results	*Regional Strategies*
Maximize the number of cleanups initiated, and clean up sites faster and more cost-effectively. **Measures:** 1. Percentage of NPL and NPL-eligible sites where response has been initiated. 2. Percentage of NPL and NPL-eligible sites where PRPs perform or pay for cleanup. 3. Percentage of NPL-eligible sites which are cleaned up through the SAS process.	Use the NPL as leverage to encourage PRPs to perform cleanups via state and tribal programs and the SAS sites process. **Evaluation:** In FY2005, the Region will evaluate whether or not sites handled through the SAS process are being cleaned up faster than traditional NPL sites.
Superfund Final Remedy Selected/Current Human Exposures Under Control/Ground Water Migration Under Control/Cleanup Completed: Eliminate or control human health and environmental risks from NPL and SAS sites. **Measures:** 1. Number of Superfund hazardous waste sites with human exposures controlled. (GPRA measure) 2. Number of Superfund hazardous waste sites with ground water migration controlled. (GPRA measure) 3. Percentage of sites deleted from the NPL.	1. Encourage accelerated investigation techniques, presumptive remedies, fast-track settlement negotiations, and expedited construction schedules at all NPL sites. 2. Ensure final remedies–designed to clean up contamination to risk levels protective of human health and the environment, and providing for reasonably anticipated land use–have been selected at NPL and SAS Superfund sites. 3. Secure state 10% cost share at fund-lead RA sites. 4. Achieve risk-based cleanup goals at NPL and SAS sites. 5. Establish necessary engineering and institutional controls to appropriately limit human exposure at NPL and SAS sites. **Evaluation:** During FY2005 and FY2006, the Region will evaluate whether the remedial program, by implementing engineering and administrative controls and removing barriers to reuse, is ensuring the long-term stewardship at NPL sites.

Outcomes/Desired Results	*Regional Strategies*
Current Human Exposure to Toxins and Toxic Releases to Ground Water Under Control: 1. Human exposure to toxins and toxic releases to groundwater are under control at RCRA GPRA sites. 2. Cleanups are completed at RCRA corrective action (CA) sites. **Measures:** 1. Number of RCRA sites at which human exposures are under control. 2. Number of RCRA sites at which toxic releases to ground water are under control.	Through 2008, WPTD will work collaboratively with all of its partners, including industry, to reduce risk to human health and the environment from RCRA sites. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
LUST Site Cleanups: Cleanups are initiated and completed at LUST sites. **Measures:** 1. Cleanup and reduction of the backlog of UST sites by 50%.	Through 2008, WPTD will work collaboratively with the states to reduce risk to human health and the environment at LUST sites and reduce the LUST backlog by 50% in 2008. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
Make Land Available for Reuse: Formerly contaminated NPL, SAS, and federal-lead RCRA CA sites are returned to productive use. **Measures:** 1. Number of acres of land ready for reuse at NPL and SAS sites (including those that are actually in reuse). (GPRA measure) 2. Number of Superfund sites or portions of sites that are ready for reuse (including those that are actually in reuse). (GPRA measure) 3. Percentage of NPL and SAS sites that are ready for reuse.	1. Issue Superfund Redevelopment Initiative grants and other assistance to communities to fund redevelopment projects. 2. Distribute fact sheets that clearly and visually communicate the environmental safety and reuse potential of remediated properties. 3. Make Ready for Reuse determinations. 4. Respond to all requests to assist with the transfer of federal properties for reuse or redevelopment. 5. WPTD will develop a strategy which factors and institutionalizes reuse/revitalization into remedy decisions. **Evaluation:** In FY2005, the SFD will conduct an evaluation to determine if issuing grants and distributing fact sheets has increased the number of acres ready for reuse compared to before the revitalization program began.

Outcomes/Desired Results	*Regional Strategies*
<u>Subobjective 3.2.3</u> ***Maximize Potentially Responsible Party Participation at Superfund Sites:*** All liable and viable PRPs pay for or perform cleanups at Superfund sites. **Measures:** 1. Percentage of removal sites with a viable, liable PRP which had a settlement, enforcement action, or voluntary cleanup. 2. Percentage of NPL and SAS sites with a viable, liable PRP which had a settlement, enforcement action, or voluntary cleanup.	1. Under the national Enforcement First strategy, evaluate sites to determine if they have viable, liable PRPs prior to expending Fund dollars (except for emergency responses). 2. Reach a settlement or take an enforcement action a) by the time of the remedial action start at 90% of NPL sites with known non-federal, viable, liable PRPs, and b) at at least 30% of removal sites. 3. Address 100% of statute of limitations (SOLs) cases with unaddressed total past costs equal to or greater than $200,000. 4. Increase the use of special accounts and improve special account utilization. **Evaluation:** The Region will compare data from FY2004 through FY2006 to determine whether we have increased the percentage of funds spent from special accounts by the time no further work is necessary at those sites (if appropriate).

Goal 4 - Healthy Communities and Ecosystems

Protect, sustain or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships

Objective 4.1: Chemical, Organism, and Pesticide Risks. Prevent and reduce pesticide, chemical, and genetically engineered biological organism risks to humans, communities, and ecosystems.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Worker Safety - Pesticides - Region 5 continues to work with EPA OPP to review the state submitted revised Certification and Training Plans and provide comments to the states for improvement.

Pesticides & Water Quality - Region 5 continues to work with states on water quality issues in anticipation of a final Pesticide Management Plan (PMP) rule. The Region continues to encourage projects/activities intended to support the state PMPs and will assure timely and effective completion of these tasks. The Region 5 Pesticide Section Staff is working with Region 5 Water Division staff to assess the impact of the Atrazine Interim Reregistration Eligibility Decision (IRED) on Community Water Systems in Region 5.

Strategic Agriculture Initiative - Region 5 has placed an emphasis on communicating Food Quality Protection Act (FQPA) related regulatory decisions and their potential impacts to the agricultural community, and in facilitating the transition to reduced-risk alternatives in response to those impacts. Using Strategic Agricultural Initiative funds, Region 5 project partners are assessing growers' educational and research needs, and developing tools to enhance the adoption of integrated pest management (IPM).

PCB Program - Region 5 is developing MOAs with Wisconsin DNR and Michigan DEQ to utilize state decision making authority for the proper management of PCB waste. The MOAs will be used in combination with TSCA coordinated approvals. This approach will expedite the remediation and disposal of PCBs in these states and, consistent with the One Cleanup Program, may be used to remediate and dispose of PCBs under other programs, such as Superfund, RCRA, Brownfields, and solid waste.

In addition, Region 5 continues to pursue ways to reduce the amount of PCB equipment currently in use. There are appoximately 4500 PCB transformers registered in Region 5, according to EPA's PCB transformer registration database. The number of PCB transformers still in use is actually higher and there are more PCB capacitors in use than PCB transformers. The number of PCB transformers and capacitors in the Region continues to be reduced yearly based on annual reports of PCB disposal activities submitted by permitted PCB disposal companies.

Lead Program - Lead is a toxic contaminant which causes adverse health effects for all age groups of humans. Children, primarily those under age six, face the greatest danger from exposures to lead, however, because their growing bodies readily absorb lead and their brains and nervous systems are more sensitive to the damaging effects of lead. Blood lead levels of 10 μg/dL or more can damage a child's ability to learn, and may lead to other health problems including behavior problems, as well.

With higher blood lead levels there can be physiological impacts on humans, including anemia, nerve degeneration and impaired function, primarily in wrists and legs, and damage to kidneys and/or reproductive systems. Extremely high blood lead levels can cause severe neurologic problems, including in some cases seizure, coma, or even death.

Much progress has been made in reducing exposures to lead, due in large part to the banning of lead-based paints and leaded gasoline. However, significant challenges remain, particularly in urban areas. NHANES data for the time period 1997-2001 indicate 2.2% of children aged 1-5 years had EBLs, which represents approximately 434,000 children nation–wide. Populations in the Northeastern and Midwestern United States have significantly higher rates of EBLs vs. other regions of the country, due to past industrial activities and the wide-spread use of lead-based paints in the Northeast and Midwest. Lead-based paint was attractive in the cold climate because it resists freeze-thaw and dampness stresses. Large number of housing units in Region 5 cities were built when lead-based paint was in use. Data indicate that between 14-22% of children tested in major Region 5 cities have EBLs, compared with the national average of 2.2%.

Children's Health - Region 5 is working collaboratively with govt. and non-govt. parties to improve children's health primarily in homes and at school. Reducing blood lead levels in children who live in urban areas continues to be a focus for Region 5 as well as developing Environmental Management Strategies for schools to address lead, integrated pest management, waste minimization and hazardous chemical management and disposal.

PBT Strategy - Region 5 has started a new strategy, targeted to reduce emissions of lead and naphthalene over a two-year period. TSCA, FIFRA, EPCRA/TRI and P2 staff work closely with RCRA staff and involve the state waste management programs, as well. Region 5 is the OSW "champion" region for PBTs and plans to implement this strategy under the aegis of the new Resource Conservation Challenge.

Toxic Release Inventory - Using information from the Office of Solid Waste's Waste Minimization Trends Report, Toxic Release Inventory reports, permit renewal applications, inspection reports, and research about industry, WPTD identifies a set of pollution prevention opportunities and engages facilities to address them.

Chemical Emergency Prevention and Preparedness - OCEPP estimates that 85% of the covered facilities have submitted an RMP and that 50% of Regional LEPCs have developed a paln to address chemical accidents. However, our interactions with facilities and LEPCs leads us to believe that less than 5% have internalized a chemical management/accident prevention ethic.

B. *What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?*

Pesticides & Water Quality - Barriers to the success of addressing pesticides and water quality issues include overlapping authorities and programs. The overlapping authorities are the Federal Insecticide Fungicide and Rodenticide Act, the Food Quality Protection Act, the Safe Drinking Water Act, and the Clean Water Act. Overlapping programs are the Pesticides Program, the Water Program and the Headquarters administered responsibilities under the Endangered Species Act. Competing program interests and authorities may hinder progress.

Strategic Agriculture Initiative - Barriers to the success of the Strategic Agricultural Initiative include the perception among many in the agricultural sector that this initiative exclusively pertains to the regulatory agencies. A paradigm shift needs to occur among the stakeholders that the regulatory agencies can serve as a partner in these voluntary Strategic Agricultural Initiatives.

Lead - Children's exposures to lead are primarily associated with:

Lead-contaminated dust inside homes that contain lead-based paint. Children get this dust on their hands and toys ingest lead through normal hand-to-mouth activity. Children can also be exposed to lead by eating paint. Children also breathe in lead dust (especially during renovations that disturb painted surfaces).

Lead-contaminated soils. A national survey of housing units conducted over the period 1998-2000 estimated 5% of housing units nationwide (approximately 4.9 million units) had play area soil lead levels $\geq$ 400 ppm.

There may also be exposures to lead resulting from air emissions and/or lead in surface waters/drinking water. In some communities, lead contaminated soils at former or current industrial sites may also contribute to children's lead exposures.

Toxic Release Inventory - The general public and other stakeholders may not know how to access or understand the information contained within the Toxic Release Inventory database.

Chemical Emergency Prevention and Preparedness - The OCEPP program receives excellent support from Regional management, the primary obstacle that needs to be addressed is the lack of sufficient resources both in terms of dollars and FTE allocated to it on the National level.

Outcomes/Desired Results	***Regional Strategies***
Subobjective 4.1.1: ***Reduce Exposure to Toxic Pesticides.***	
<u>*Pesticides & Water Quality*</u> Reduce the amount of pesticides in the waters of the Region. ***Measure(s):*** Complete Water Quality Implementation Plan. The plan will identify the top pesticide/water quality issues as well as the actions taken to resolve the issues.	> Through 2008, Region 5 will coordinate on issues where pesticides and water programs have a mutual interest. The Region will help facilitate all levels of government to work toward solutions to problems arising out of overlapping or conflicting authorities and programs or arising out of the lack of authority or programs to address the issue. WPTD will provide assistance on 1) adverse effects from currently registered pesticides on ground water and surface water, 2) processes needed to avoid and mitigate adverse effects from currently registered pesticides, and 3) attaining coordination at the state level among the agencies with water responsibilities. > Region 5 Pesticides and Water Programs will work cooperatively to address pesticides and water quality issues associated with source water protection plans, TMDL development, resource conservation efforts, etc.

Outcomes/Desired Results	*Regional Strategies*
	Evaluation: Region will work with national program to develop a regional evaluation plan.
<u>*Strategic Agriculture Initiative*</u>*:* Reduced use of high risk pesticides in the Region. ***Measure(s):*** Number of grants awarded which evaluate alternatives to harmful pesticides. Number of agricultural partnership projects initiated.	> Through 2008, Region 5 will develop pest management strategies with growers not otherwise reached by USDA and EPA HQ. The strategies will identify alternatives to harmful pesticides and assist targeted groups in producing safe food. Implement model agricultural partnership projects that demonstrate and facilitate the adoption of farm management practices that transition growers away from highest risk pesticides. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
Subobjective 4.1.2: *License Pesticides Meeting Safety Standards.* <u>*Worker Safety-Pesticides*</u>: Improve pesticide worker safety. ***Measure(s):*** Number of pesticide worker protection training sessions provided to States and State designated agents.	> Through 2008, strengthen pesticides worker protection, certification and training by providing States and State designated agents with appropriate training, guidance, and resources to successfully implement pesticide worker safety programs. > EPA Region 5 will encourage states to implement CTAG recommendations and become involved in this national assessment. > EPA Region 5 will also encourage cooperation and partnering between state pesticide agencies and pesticide safety educators at not only the state level, but the regional level as well. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
Subojective 4.1.3: *Reduce Chemical and Biological Risks.* <u>*PCB Program*</u>*:* Reduce the number of pieces of PCB electrical equipment in use. ***Measure(s):*** Number of transformers safely disposed. Number of capacitors safely disposes.	> Through 2008, Region 5 will continue its efforts under the Region 5 PCB Phase out Program, the Persistent Bioaccumulative Toxics Initiative and the Binational Strategy. > Through 2008, Region 5 will seek the early voluntary retirement of PCB equipment. **Evaluation:** Region will work with national program to develop a regional evaluation plan.

Outcomes/Desired Results	*Regional Strategies*
<u>*Lead Program:*</u> **Regional Priority:** Substantially reduce the occurrence of elevated blood-lead levels (EBLs) in children in communities in Region 5. **Measures/Indicators:** • Mean blood lead levels of children, as measured through systematic surveys (i.e., NHANES); • Local lead screening and poisoning prevalence data, as measured through jointly targeted efforts such as HITS (High Intensity Targeted Screening, initially piloted by CDC and Chicago Department of Public Health in 2001); and Number of children with elevated blood lead levels (i.e., > 10 µg/dL).	Through 2008, Region 5 will foster effective partnerships among all federal, state and local agency partners who have or should have partial jurisdiction in lead poisoning prevention, including environmental, health, housing, education and family service agencies on projects that reduce lead poisoning in children. Through 2008, Region 5 will target efforts to reduce exposures to lead in the areas/neighborhoods with the greatest needs. Through 2008, Region 5 will effectively implement specific federal programs, and seek out and implement non-conventional approaches where needed and appropriate. **Evaluation:** Evaluation of success of EPA and partner organizations in addressing the lead challenge will be base primarily on progress toward the following specific goals: • By 2008, the number of children with EBLs will be reduced from approximately 72,000 (in 1999/2000) to 27,000. • By 2010, all children will have blood lead levels below the CDC and EPA action level of µg/dL.
<u>*Children's Health*</u>*:* By 2008, a significant number of children in Region 5 will attend schools that have healthier environments including reduced exposures to poor indoor air quality, asbestos, mercury, pesticides and other hazardous chemicals. ***Measure(s):*** By 2008, 5% of school districts within Region 5 will adopt an Environmental Management Systems approach to school environmental health.	> Through 2008, WPTD will provide technical assistance to K-12 schools/districts on school environmental health issues such as integrated pest management, waste minimization, hazardous chemical management and disposal for laboratory and facility chemicals. WPTD will encourage voluntary school "greening" to improve school environmental health. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
<u>*PBT Strategy*</u>*:* Reduction in the release or exposure to priority persistent bioaccumulative toxic (PBT)	> Through 2008, WPTD will identify and foster participation across the Regional programs and offices in supporting projects that reduce exposures to PBT chemicals. WPTD will also identify emerging issues related to these chemicals as well as seek solutions

Outcomes/Desired Results	*Regional Strategies*
chemicals (mercury, PCBs, dioxins/furans, lead, naphthalene, polycyclic hydrocarbons) in wildlife and humans. ***Measure(s):*** Region will reduce the volume of lead, naphthalene and polycyclic hydrocarbons generated by 50% by 2008.	by partnering with all Regional programs. WPTD will also affect the development of national and Regional policies addressing PBT chemicals. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
<u>*Toxic Release Inventory*</u>: A Toxic Release Inventory (TRI) which is accurate and accessible to the general public and regulators. ***Measure(s):*** Increased awareness of TRI database among TRI stakeholders as measured by TRI training participants' test results.	> Through 2008, WPTD will increase awareness of the information contained within the TRI data base to the general public and the accuracy provided by the entities it regulates. The regulated entities may not be filing accurate reports or may not be filing any reports. **Evaluation:** Region will work with national program to develop a regional evaluation plan.
Subobjective 4.1.4: *Reduce Risks at Facilities.* 1. By 2008 50% of the Region's agricultural cooperatives will have developed and internalized a chemical management safety ethic. 2. By 2008 50% of the Region's water and waste water treatment facilities will have developed and internalized a chemical management safety ethic.	> Outreach/training either independent of or in conjunction with partners > Provide compliance assistance as part of RMP audits/inspections > Sponsor joint LEPC/industry exercises of emergency plans > Develop and/or contribute to publications, newsletters, fact sheets to reinforce message > Leverage existing inspection efforts of State Departments of Agriculture and fire departments > Targeted administrative enforcement actions > Review and comment on water facility SVA

Outcomes/Desired Results	*Regional Strategies*
3. By 2008 50% of the Region's urban LEPC's will have incorporated facility risk information into their emergency preparedness and community-right-to-know programs.	> Develop partnership with SERCs to: -identify industrialized urban areas of concern. -conduct joint training/outreach to LEPCs -ensure facilities are providing inventory/facility data to LEPCs that is necessary for planning -promote the use of computer-based GIS software to assist ~~in~~ LEPCs in planning -promote the use of RMP data by LEPCs in their planning process **Evaluation:** In FY2005, the Region will determine if facilities have internalized process management safety as part of their corporate ethic and, if so, whether the RMP requirement was the cause of this change.

Objective 4.2: Communities. Sustain, cleanup and restore communities and the ecological systems that support them**.**

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Community Health (Urban Initiative/Great Cities) - The Midwest abundance of natural resources and ease of access by major waterways and overland trails attracted settlers who built centers of commerce, trade, transportation, and agriculture. These urban centers experienced economic prosperity, population growth and industrial expansion which brought environmental consequences and the complex issues of jurisdiction and governance. Now urban areas are mature and coping with depressed economic conditions, a world market that lures businesses to other locations, aging infrastructures, growing and changing populations, decreasing revenues, and increasing demand for social services. They are also homes to unique and special ecosystems. Urban areas present complex environmental problems which would benefit from innovative approaches.

Environmental Justice - Many predominantly low-income and minority communities (both in urban and rural areas) continue to experience significant adverse environmental impacts. Members of these communities repeatedly express concerns that these impacts fall disproportionately on them, and are directly harming their health and environment, as well as lowering their overall quality of life. They also question whether EPA is making sufficient use of existing legal authorities to identify and respond to these concerns. Region 5's main strategies in response to these concerns are now aligned with the "Objectives" set out in Office of Environmental Justice's instructions for development and submission of program- and Region-specific Environmental Justice Action Plans for FY 2004-2005.

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Brownfields - Significant public sector redevelopment resources exist within an extensive network of state, tribal and local governmental programs. Many programs target the broadest range of deserving and needy communities. Yet the sum total of these funds is only a small portion of what is truly needed for the Region's urban and abandoned industrial areas. Region 5 easily contains 20–25% of the nation's brownfield inventory, which is estimated to be over 450,000 properties. Coordination of existing

redevelopment resources toward those properties where development will only occur with public sector involvement is essential in order to maximize urban redevelopment efforts across the Region. Recognition that these are high risk real estate transactions is essential to future success.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

Community Health (Urban Initiative/Great Cities) - Urban areas major environmental problems include public health, ecosystem, economic redevelopment issues such as air pollution, poor water quality, contaminated soils and sediments, and lead poisoning, loss of wetland , and brownfields.

Environmental Justice -

- Inconsistent incorporation of EJ into our Regional policies and programs.
- Difficulty in determining if our EJ efforts result in measurable improvements in the environment and human health of low-income and minority communities.
- Difficulty in implementing EJ practices and addressing EJ concerns in a time of "shrinking resources."
- Getting Region 5 States and other relevant stakeholders without EJ programs/policies to develop a comprehensive EJ program/policy.
- No system in place to track regional EJ cases/projects and monitor their progress.
- Lack of qualitative or quantitative assessment of the overall environmental and human health of low-income and minority communities in Region 5.
- Lack of a clear national definition of "disproportionate impacts" or a methodology to assess cumulative risks.

Brownfields: The central problems or obstacles to be overcome are a lack of coordination and synchronizing of grant cycles and a lack of communication among the funding agencies. For projects where public sector resources are going to form the basis of all redevelopment funding it is imperative that all funds be leveraged for maximum impact. Community need must be balanced by the redevelopment potential of any project and vise versa. Planning and project feasibility funding can be spread fairly thin over many communities and still have a positive impact. Cleanup and other construction funding on the other hand must be targeted to fewer projects, with a nexus of resources and with a higher potential for success.

Outcomes/Desired Results	***Regional Strategies***
Subobjective 4.2.1: *Sustain Community Health.*	
<u>*Urban Initiative*</u>: To produce measurable environmental results through the reduction of contaminant releases to the environment thus helping to create robust and sustainable urban economies; and healthier human populations and ecosystems.	Through the Urban Initiative Program, Region 5 will address complex environmental problems presented by urban areas which, whether single or multi-media in nature, benefit from an innovative approach under the management of dedicated staff. The Region will focus on action, not analysis; using individual projects to get to results, seeking comprehensive, community supported solutions, bring th full rang of EPA regulatory and voluntary tools and

Outcomes/Desired Results	*Regional Strategies*
Measure(s): XX% reduction in pounds of air toxics, XX of sites or acres available for redevelopment, miles of rivers that have had sediment remediation, % reduction in lead poisoning, XX of homes abated for lead, XX and kinds of voluntary programs implemented that will reduce pounds of pollutants and promote pollution prevention and sustainable activities. Since much of this work is accomplished through partnerships, measures early in the process may describe agreements to identify and develop strategies to address environmental problems.	expertise to bear on the problems, and leveraging resources from across the agency as well a with other federal, state, local, and private partners; and building on existing capacity in groups and institutions wherever possible. Urban initiative managers are charged with working with the Region's divisions and offices and states to identify priority problems and places which would benefit from a team approach that will provide a holistic perspective. The urban initiative activities will focus on discrete projects for which a workplan with associated goals, objectives, identified resources, and a schedule and timeline will be developed. A team of Region 5, State and local stakeholders will jointly implement the workplan. WPTD will, through 2008, reduce contaminated land in NW Indiana through land remediation, restoration, and re-use.
<u>*Great Cities Partnerships:*</u> To produce measurable environmental results from the projects identified as an environmental priority by the Mayor of each city of the Great City Partnerships. The Great Cities are: Chicago, Detroit, Minneapolis, Milwaukee, and Indianapolis.	> The Urban Initiative Managers will seek out specific environmental projects within their respective cities and will then assist in implementation and project management of recommended projects. Projects will be funded with existing RGI money and will, if applicable, enlist programmatic support to enhance the proposed project. > In addition to these six Great Cities projects, the UIMs will assist in implementing, coordinating and facilitating specific program projects in each Great City. For example: **<u>Detroit</u>** * Detroit River Flyway Initiative *SEMI Environmental Forum *Detroit Lead Partnership **<u>Chicago</u>** *Chicago River Workgroup/Chicago Area Rivers Remediation Initiative *Chicago Lead Strategy *Green Chicago Projects *Air Toxics Reductions through Pollution Prevention and Environmental Management Systems (Chicago) *Ford Good Neighbor Dialogue (Chicago) *Sustainable Development Activities in Southeast Chicago **<u>Cleveland</u>** *Cleveland Clean Air Campaign *Cleveland's One-Stop Brownfields *Cleveland's Greenway project

Outcomes/Desired Results	*Regional Strategies*
	Milwaukee (To be determined) **Minneapolis** *Urban tree planting initiative **Indianapolis** (To be determined)
Subobjective 4.2.2: ***Restore Community Health*** *Environmental Justice*: To integrate environmental justice into all EPA programs, policies, and activities in a way that results in a measurable benefit to the environment and public health of affected communities. ***Measure(s):*** Successful implementation of the Region 5 FY2004-2005 EJ Action Plan and all subsequent Action Plans as required by the Office of Environmental Justice in EPA Hqs. Measures for each strategy are set out in the Action Plan.	Implement our Region 5 EJ Action Plan which describes our efforts in the following objective areas: 1. *Risk Reduction / Protect Environmental and/or Public Health* - To ensure equal implementation of environmental laws to achieve significant risk reduction which will improve the environment and/or public health of affected communities. Activities include: community-scale air toxics assessment; enforcement targeting; draft permit review; addressing fish contamination; and considering EJ in NEPA review. 2. *Outreach and Communication* - To provide opportunities for meaningful involvement and ensure effective communication between the Agency decisionmakers and stakeholders, including all affected communities. Activities include: updated EJ information available on Region 5 website; outreach to concerned groups; tracking of cases where EJ is raised to ensure follow-up. 3. *Training* - To provide training for EPA managers and staff to enable them to incorporate environmental justice considerations into their decisionmaking process. Activities include: providing general training on EJ, as well as training in specific areas (in coordination with OEJ). 4. *Federal, State, Tribal, and Local Government Coordination* - To ensure effective coordination across all levels of government to address the environmental and public health concerns of affected communities. Activities include: work with state permit programs in ensure consideration of EJ issues; convene information-exchange meetings. 5. *Grants and Contracts Administration* - To promote effective and efficient management of all grants and contracts to ensure that the environmental and public health concerns of affected communities are addressed. Activities include: updating Grant Writing Tutorial; integrating EJ criteria in Great Lakes funding guidance. *6. Environmental Justice Assessment* - To conduct an assessment of the environmental justice indicators within affected communities as part of the decision-making process. Activities include: finalizing Region 5's Interim EJ Guidelines for EJ Assessment; better integrating assessment into permitting actions.
Subobjective 4.2.3: ***Assess and***	

Outcomes/Desired Results	*Regional Strategies*
Clean Up Brownfields. 1. State and federal programs targeting increased numbers of same-community projects, maximizing financial effectiveness. > Reduced number of strategic projects go unfunded. > New funding sources to neediest communities and Tribes. > National base program targets met. **Measure:** Number of Brownfield applications received and funded.	1. Leverage existing environmental and economic redevelopment programs. 2. WPTD will, by 2004, develop a RCRA Reuse/Redevelopment Strategy for the Region which further defines WPTD's role. **Evaluation:** In Fy 2005, the Region will evaluate whether or not the current brownfields program is flexible enough to meet our customer's needs
2. Brownfields redevelopment factored into the regional land use plan. **Measure:** Meth lab Project initiated in at least one state.	Encourage adaptive reuse of infrastructure and the creation of open space.
3. Increased numbers of park land and open space created within existing Regional Brownfield inventories. **Measures:** Number of green space projects funded with brownfield grant dollars.	Encourage adaptive reuse of infrastructure and the creation of open space.

Objective 4.3: Ecosystems. Protect, sustain and restore the health of natural habitats and ecosystems.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Wetlands - Trends indicate that wetland acreage is declining. A change in the definition of waters of the U.S. could also lead to a loss of the wetlands, which are a significant natural resource in Region 5. The Illinois Natural History Survey estimated that 150,118 acres of wetland are at risk if "isolated" wetlands are no longer regulated. The Indiana Department of Environmental Management estimated that as many as 315,235 acres of "isolated" wetlands could be lost. Because of the downward trend and the uncertainty over the definition of waters of the US, it is critical that we have accurate information on wetland quantity and quality and work to increase acreage through mitigation and other efforts.

Great Lakes - The Great Lakes are the largest system of surface freshwater on earth, containing 20% of the world's surface freshwater resource and accounting for more than 90% of the surface freshwater in the US. The watershed includes two nations, eight US States, a Canadian Province, and more than forty Tribes and is home to more than one-tenth of the US population. The 2001 State of the Lakes Ecosystem Conference Report assessed the status of the chemical, physical, and biological integrity of the waters of the Great Lakes basin ecosystem as mixed because:

- Surface waters are still amongst the best sources of drinking water in the world;
- Progress has been made both in cleaning up contaminants and in rehabilitating some fish and wildlife species;
- Invasive species continue as a significant threat to Great Lakes biological communities;
- Atmospheric deposition of contaminants from distant sources outside the basin confound efforts to eliminate these substances;
- Urban sprawl threatens high quality natural areas, rare species, farmland and open space; and
- Development, drainage, and pollution are shrinking coastal wetlands.

For the Agency Strategy, GLNPO was asked by HQ to propose a single measurable Great Lakes subobjective for which progress could be quantified by 2008. We proposed an index based upon the work done with partners through the State of the Lakes Ecosystem Conferences, using and interpreting select indicators (i.e., coastal wetlands, phosphorus concentrations, AOC sediment contamination, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition). The 2002 baseline was 20 on a 40 point scale, based on a 1 to 5 rating system for each indicator, where 1 is poor and 5 is good.

Gulf of Mexico - Nutrient loadings from throughout the Mississippi River Basin, including a large portion of Region 5, are believed to be the principle cause of the expansion and increasing persistence of a hypoxic zone in the Gulf of Mexico.

B. *What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?*

Wetlands - Problems include: limited authority to prevent wetland loss; the SWANCC Decision limits the scope of jurisdictional wetlands; and the ability to measure real environmental improvement to wetlands (lack of baseline data and monitoring approach)

Great Lakes - The major problems in the region that need to be addressed in order to make progress toward the strategic objective are: Air toxics deposition, contaminated sediments, invasive species, and loss of wetlands.

Note that none of the 28 estuaries identified in the Coastal Conditions Report cited in Sub-objective 4.3.1 are located in Region 5.

Outcomes/Desired Results	***Regional Strategies***
Subobjective 4.3.2: ***Increase Wetlands*** <u>*Wetlands and Watersheds*</u>: 1. A current and accurate baseline of wetland data is completed and maintained. ***Measure(s):*** The baseline of wetland data is useful to developers and regulators in protecting and restoring wetland resources.	> Work in partnership with others to create a current baseline of wetland data. 1a. Wetland Consortium 1b. GIS wetland baseline mapping 1c. MNRG Wetland tracking 1d. National wetland assessment guideline 1e. Wetland Monitoring Programs **Evaluation:** At end of the reporting period, we will evaluate the coverage, scale, and usefulness of the tracking efforts to all partners.
2. Protection and restoration of critical habitat, including wetlands, on Tribal lands. ***Measure(s):*** Critical habitat on Tribal lands is protected and restored.`	> Work with Tribes to develop and implement Wetland Conservation Plans that allow them to identify, protect and restore critical habitat. **Evaluation:** We will work with the Tribes to evaluate the effectiveness of the Wetland Conservation Plans as they are implemented.
3. Consistent jurisdictional determinations. ***Measure(s):*** Jurisdictional determinations are consistent among agencies.	> Work with COE and States on wetland jurisdiction protocols.
4. Building capacity of State and Tribal wetlands programs. ***Measure(s):*** States and Tribes have the capacity to implement the core elements of an effective wetlands program..	> Work with States/Tribes to enhance State or local authority over wetlands.
5. A public educated on the benefits and importance of wetlands. ***Measure(s):*** Increased public support for wetlands protection.	> Sponsor conferences, provide training, develop and distribute written materials.
6. Increased wetland quality and quantity.	> Leverage EPA programs and partner with other

Outcomes/Desired Results	*Regional Strategies*
	agencies to increase wetland acreage and quality. > Carry out enforcement and provide compliance assistance. > Target actions to Regional geographic focus areas **Evaluation:** We will evaluate whether enforcement actions and compliance assistance resulted in wetland gains, especially in targeted geographic areas.
7. Successful wetlands mitigation. ***Measure(s):*** Acres of wetlands saved or gained due to restoration, mitigation, and enhancement.	> Promote mitigation in our review of and comments on COE Public Notices > Oversee mitigation/restoration resulting from the resolution of enforcement actions. > Mitigation requirement oversight in partnership. **Evaluation:** Mitigation followup occurs on a consistent basis resulting in successful wetlands.
Subobjective 4. 3.3: ***Improve the Health of Great Lakes Ecosystems.***	
1. By 2008, prevent water pollution and protect aquatic systems of the Great Lakes so that the overall ecosystem health of the Great Lakes is improved by at least 2 points. ***Measure(s):*** The overall ecosystem health of the Great Lakes is improved by at least 2 points. (2002 Baseline: Great Lakes rating of 20 on a 40 point scale where the rating uses select Great Lakes State of the Lakes Ecosystem indicators (i.e., coastal wetlands, phosphorus concentrations, AOC sediment contamination, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition), based on a 1 to 5 rating system for each indicator, where 1 is poor and 5 is good. 2. PCB concentrations in fish decline by 25% (2000 to 2007). 3. Delist 3 AOCs by 2005 and 10 by 2010. 4. By 2006, create 10 voluntary partnerships with sources of persistent toxics. 5. By 2006, all NPDES permitted discharges will have permit limits that reflect the Guidance's water quality standards, where applicable.	> Work with State, Tribal, and Federal partners to implement the Great Lakes Strategy. Tools and methods will include: 1. GL Strategy 2. GL Binational Toxics Strategy 3. GL Legacy Act 4. LaMPs 5. RAPs 6. GLNPO and GL Strategy Partners: EPA Base programs (Air, Water, Waste); State/Tribal Env. and Natural Resource Agencies; Federal Agencies (ATSDR, NOAA, USACE, Coast Guard, Ag agencies - NRCS, CSREES, and FSA, USFWS, USFS, NPS, and USGS; GL Fishery Commission; and Canadian partners **Evaluation:** Annual Progress Review with US Policy Committee Fall - Request Updates Feb - Updates due Spring - Report on Progress

Outcomes/Desired Results	*Regional Strategies*
6. Beginning in 2004, complete three sediment remedial actions per year. 7. By 2005, 100% of all CSO permits in the Great Lakes basin will be consistent with the national CSO Policy. 8. By April 2004, all Great Lakes States will adopt bacteria criteria at least as protective as USEPA's Ambient Water Quality Criteria for Bacteria. 9. By 2005, water quality monitoring and public notification programs will comply w/ National Beaches Guidance at 95% of all high priority GL beaches.	
Subobjective 4.3.5: ***Gulf of Mexico***. Prevent water pollution and protect aquatic systems in order to improve the overall health of the Gulf of Mexico. **Strategic Target IV-N (2):** By 2015, reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico, to less than 5,000 km2 as measured by the five year running average of the size of the zone.	**Region 5 strategies/milestones** - In cooperation with Region 7 by the end of 2004, facilitate the organization and operation of a state led sub-basin team - Provide leadership to MNRG to facilitate interagency cooperation, so that by 200X the combined effect of point source regulatory programs, agricultural conservation programs and habitat restoration projects is to reduce nitrogen loading from the Illinois River basin by 30%. - In cooperation with IEPA, MWRDGC and BNWRD, and TWI, demonstrate the effectiveness of nutrient farming to remove nitrogen from Illinois River waters by 2008 [?]. - In cooperation with OEPA, GMCD and ORSANCO, demonstrate a nutrient trading program in the Great Miami River watershed by 2006 [?]. - Provide technical assistance and resources to States so that by 2008 all have adopted nutrient criteria for fresh waters.

Objective 4.4: Enhance Science and Research. Through 2008, provide a sound scientific foundation for EPA's goal of protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 4.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Ecosystem Protection Approach- A number of regional offices have developed ecosystem assessment models that either identify high quality areas for protection or some other method of determining current ecological health within their Regions. These Regional Offices, as well as interested Headquarters offices and ORD, have developed a Regional Ecosystems Protection Strategy (REPS) that will create effective initiatives and strategies within the core functions of EPA to facilitate the protection and restoration of ecosystems which are critical to biodiversity, human health and/or landscape functions.

Environmental Indicators - We have not fully used environmental and human health indicators to influence our strategic decisions and demonstrate the results of our protecting the Environment. We have used shorter term activity records. How best to use indicators (and which ones) is a new area that EPA is exploring. The Agency is working at a national level with state and other federal Agencies to establish core representative indicators.

Human Health - The relationship between human health data and environmental data is not fully understood. Except for lead, there is no environmental contaminant where the linkage between human health and environmental conditions is fully understood. Our human health risk assessments are models that link human health and environmental conditions, however, they require the use of many assumptions. Understanding human health as it relates to environmental conditions is a daunting task. There are approximately 70,000 chemicals in production, many with by-products and metabolites.

Science Coordination and Communication - Currently, the Region does a reasonable job of communicating research needs and science policy among regional programs. Improved communication with the Region 5 states regarding their research needs and current science policy is needed.

Community Water Systems - The EPA Water Protection Task Force estimates that 99% of the large (serving 100,000 or more people) Community Water Systems (CWSs) have completed and submitted Vulnerability Assessments (VAs) and VA Certifications to EPA Headquarters and are in the process of preparing/updating Emergency Response Plans (ERPs) incorporating the VA results. All large CWSs in Region 5 have completed and submitted a VA and VA Certification. Medium size CWSs (serving 50,000 - 99,999 people) and small CWSs (serving 3,301 - 49,999 people) are in the process of preparing their VAs. The due dates for submittal to EPA Headquarters are December 31, 2003 for the medium sized systems and June 30, 2004 for the small systems.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

Ecosystem Approach*:*

i) Geo-Spatial Tools - The Critical Ecosystems Team's model of ecosystem health is now going through peer-review and validation. This model, as well as others developed by different Regional

Offices will be the basis of using sound science to better understand and improve ecosystem health.

ii) Environmental Indicators - The Region does not have a clear set of specific environmental indicators for ecosystem protection to help drive decision-making. A good set of indicators and tracking them is key for our mission, for clear decision-making and informing budgetary decisions. The Agency is working at a national level with the Science Advisory Board, state and other federal Agencies to establish core environmental indicators, and Region 5 is assisting in this effort.

Environmental Indicators - The Region does not have a set of environmental indicators specific to Region 5. These indicators should be identified and tracked over time to access our progress in environmental protection.

Human Health - In order for the Agency to best achieve its mission to protect human health and safe guard the natural environment we need to better understand the linkages between environmental hazards, ensuing human exposure, and potential health outcomes. With this information, we can better inform environmental and public health policies and decisions. Human health outcome information exists, often at the local level, but it is often not comparable with the information available on environmental conditions. Generating comparable human health and environmental information is an important step to make progress toward this objective.

Science Coordination and Communication - Establishing and fostering a Region 5 State/Tribal Science Network will improve communication between the Region and States on research needs and science policy.

Community Water Systems - The major problems that the Region faces in addressing this objective is lack of funding for implementation of security enhancements recommended as a result of the Vulnerability Assessment process.

Outcomes/Desired Results	*Regional Strategies*
Subobjective 4.4.1: ***Apply the Best Available Science.***	
<u>*Ecosystem Approach*</u>: Through 2008, identify and synthesize the best available scientific information, models, methods and analyses to support Agency guidance and policy decisions related to the health of people, communities, and ecosystems.	1. Use the results of the completed peer review and validation of R5 Critical Ecosystems Assessment Model as inputs to the REPS workgroup. (FY '04) **Evaluation:** R5 CrEAM model is part of OPEI analysis of regional geo-spatial tools. Does R5 model provide a scientific basis for Agency geo-spatial tools?
<u>*Geo-Spatial Tools*</u>: In coordination with other federal agencies, EPA develops new geo-spatial tools and information that allows the Agency and its partners to assess ecosystem conditions holistically. **Measures:** 1. High quality ecosystems are identified and	2. Once CrEAM model has been peer reviewed and validated, place it on the Internet for R5 and external party use. (FY '05) **Evaluation:** Does tool provide a value-added approach to EPA, State and NGO environmental protection strategies?

Outcomes/Desired Results	*Regional Strategies*
protected and/or restored as a result of Agency actions. 2. Useful indicators are developed that help EPA measure ecological improvements for both program work and for EPA's evolving *Report on the Environment.*	3. Develop and continue a training program to use geo-spatial tools in program work. (FY '04 - '05) **Evaluation**: Does training class lead to more use of model and do program actions lead to a greater protection of critical ecosystems?
<u>*Human Health*</u>: 1. Regional human health risk assessments are conducted in accordance with appropriate guidance. 2. The relationship between human health data and environmental data is assessed. ***Measure(s):*** One or two states are developing data that measures the relationship between environmental conditions and human health outcomes.	1. The Region 5 Risk Policy Forum meets regularly, shares information, and discusses issues associated with conducting human health risk assessments. **Evaluation:** Region HHS consults with internal and external clients on risk assessments. 2. Region Human Health Scientist participates in implementing Memorandum of Understanding between EPA and HHS to for developing and linking environmental health information sources. **Evaluation:** This is a long term effort, scheduled for completion in FY08. This is an effort to develop meaningful outcomes measures for measuring the human health impact of environmental conditions. Once the outcome measures are developed the effort will be fully successful.
<u>*Science Coordination and Communication*</u>: There is clear communication on science policy issues and research needs within the Region and with our states. ***Measure(s):*** 1. Scientists and decision makers within Region 5 and in our states are informed of the process to submit research needs to ORD. 2. Scientists and decision makers within Region 5 and in our states are provided opportunities to provide research needs. 3. Scientists and decision makers within Region 5 and in our states are informed of key Science Policy issues and allowed to provide input where R5 or state activities are directly impacted. 4. Scientists and decision makers within Region 5 and in our states are informed of science implementation procedures such as Peer Review, Information Quality Guidelines and the process for updating the Agency Science Inventory database.	1. The Regional Science Council (RSC) meets regularly to discuss and prioritize research needs for submittal to ORD. 2. The RSC chair identifies qualified regional scientists (in some cases, they will be RSC members) to serve on the Regional Applied Research Effort review panel. 3. The RSC chairman participates in Agency Science Policy Council Steering Committee meetings. 4. The Region 5 Deputy Regional Administrator, RSC management advisor and the RSC Chair participate in Science Policy Council (SPC) meetings. 5. RSC meeting agendas include time to provide updates on issues under consideration by the Agency Science Policy Council and the Science Policy Council Steering Committee. 6. The RSC chairman organizes teleconference calls with members of the Region 5 State/Tribal Science

Outcomes/Desired Results	*Regional Strategies*
	Network and provides updates on SPC science policy issues. 7. The RSC hosts a meeting of State/Tribal Science Network members and their respective managers to discuss and identify methods to improve science collaboration and science planning activities. **Evaluation:** 1. The RSC has a planning sub committee that will track these activities to achieve the desired outcomes. 2. The States receive feedback about their input to EPA research identification process.
Vulnerability Assessments for Community Water Systems: All Community Water Systems prepare and submit a Vulnerability Assessment (VA) and VA Certification to Headquarters by the required due date: Population Served — Due Date 100,000 or more — March 31, 2003 50,000 - 99,999 — Dec. 31, 2003 3,301 - 49,999 — June 30, 2004 ***Measure(s):*** Number of Vulnerability Assessments and Vulnerability Assessment Certifications submitted on time.	**Strategies to achieve this outcome:** > Provide direct technical assistance, as requested, to Community Water Systems (CWSs) on Bioterrorism Act requirements, including Vulnerability Assessments (VA) and Emergency Response Plans (ERP). > Provide training and technical assistance to CWSs on VA and ERP preparation through grants to state drinking water primacy agencies to support state security coordination and training and technical assistance activities. > Provide input and assistance to the Water Protection Task Force in helping HQ grantees/contractors implement train-the-trainer and direct training and technical assistance programs for assisting small and medium sized CWSs in preparing their VAs and ERPs. **Evaluation:** > Track and monitor the number of direct requests for technical assistance from CWSs quarterly. > Track and monitor the number of VA/ERP training and technical assistance opportunities provided by the states and number of CWSs attending. Semi-annually report numbers in whatever format the states have in their records - that could be number of attendees, or number of CWSs. > Track and monitor the number of technical assistance/training workshops and train-the-trainer offered in the Region and # of CWSs attending. Semi-annually report numbers in whatever format

Outcomes/Desired Results	*Regional Strategies*
	the states have in their records - that could be # of attendees, or number of CWSs.

Goal 5 - Compliance and Environmental Stewardship

Protect human health and the environment by improving environmental behavior through regulatory and nonregulatory means.

Objective 5.1: Improve Compliance: By 2008, maximize compliance to protect human health and the environment through compliance assistance, compliance incentives, and enforcement by achieving a 5% increase in pounds reduced, treated, or eliminated; and achieving a 5% increase in the number of regulated entities making improvements in environmental management practices.

A. What is the current state of human health or environmental protection for this objective in the region and are there any relevant trends over time (i.e., what indicators or data specific to this objective characterize the current status and trends as context for the region's strategy)?

Goal 1 (Air) - For the 8-hour ozone and PM 2.5 NAAQS, there are many areas in the Region that are monitoring nonattainment. A full 50% of the nations Iron and steel capacity is within the Region and 24% of the nations coal fired utility electrical production (18% of total utility electrical generation) comes from Region 5. Region 5 has more than 10,000 sources affected by MACT standards. More than 6300 sources report TRI emissions in Region 5 with greater than 208,000 tons per year of air emissions in 2000. The National Air Toxics Assessment (NATA) indicates that air toxics are a concern nationwide and there are a significant number of urban areas in Region 5 which are at a higher relative risk.

Goal 2 (Water) - Drinking water - Roughly 25% of the water body impairments in the Region are based on fish consumption advisories. The most common contaminants causing the advisories are PCBs and mercury. Region 5 has over 40% of the nation's CSOs and rapidly growing urban areas that need to better control storm water runoff. In addition, there are substantial numbers of municipalities with sanitary sewer overflow and bypassing problems that have resulted from aging, overloaded and/or poorly maintained wastewater treatment facilities. Control of CSOs and elimination of SSOs & bypassing though compliance activities will eliminate the discharge of billions of gallons of raw and partially treated sewage to the nation's waters.

Goal 3 (Land) - Underground Storage Tanks - LUST - RCRA corrective action and TSCA cleanup sites.

Goal 4 (Communities & Ecosystems) - Pesticides and their affect on workers and others - Blood-lead levels in children - PCBs and PBTs - Many low-income and minority communities (both in urban and rural areas) continue to bear the burden of exposure to environmental pollution resulting in negative impacts to their health and overall quality of life. Trends indicate that wetland acreage is declining. A change in the definition of waters of the U.S. could also lead to a loss of the wetlands, which area significant natural resource in Region 5.

B. What are the major problems in the region that need to be addressed in order to make progress toward the strategic objective?

Compliance with applicable laws and regulations must be ensured in order to achieve the results desired under Goals 1 through 4 - clean air, clean water, preserved and restored land, and healthy people, communities, and ecosystems. The Region will do this by using the compliance tools identified at the national level - compliance assistance, incentive policies, and monitoring & enforcement. The Region will also focus on areas that have been a problem in the past by 1) aggressively addressing Environmental Justice and ensuring better integration of EJ into every facet of its operations, 2) making enforcement and compliance assurance work more strategic, efficient, and effective ("smart enforcement") by focusing on actions leading to the most significant and measurable impacts (SNC, NSR/PSD, and CSOs/SSOs), and 3) strategically using enforcement and compliance data by making it accurate, timely, and able to be used for targeting enforcement, compliance incentives, and compliance assistance actions.

Outcomes/Desired Results	***Regional Strategies/Tools***
<u>Subobjective 5.1.1:</u> ***Compliance Assistance*** Achieve a 5 percentage point increase in the percentage of regulated entities that improved their understanding of environmental requirements; a 5 percentage point increase in the number of regulated entities that improved environmental management practices; and a 5 percentage point increase in the percentage of regulated entities that reduced, treated, or eliminated pollution.	Improve the quality and increase the amount of compliance assistance provided to the regulated community through use of various compliance assistance tools. These might include training, workshops, on-site visits, mailings, etc. **Measures:** <u>CAA:</u> ‣ # of MACT categories determined to benefit from compliance assistance (ARD is developing a plan to oversee air toxics permitting and implementation that will determine the MACT categories). ‣ # entities receiving compliance assistance in each category. <u>SDWA:</u> ‣ # of information packages sent to motor vehicle waste disposal wells containing an explanation of regulatory requirements & the environmental benefits of properly managing the wells, guidance on how to properly close the wells, and a request for voluntary compliance in advance of the regulatory compliance deadline (UIC program) <u>RCRA:</u>

Outcomes/Desired Results	*Regional Strategies/Tools*
	▸ % of State environmental agencies (and other State agencies/departments that provide compliance assistance for RCRA requirements) participating in an annual meeting to share developments in, and coordinate the delivery of, accurate compliance assistance for RCRA requirements. ▸ % of R5 States agreeing, in cooperative agreements, to (a) measure and (b) report to EPA results from providing compliance assistance for RCRA requirements. ▸ % entities receiving State-provided compliance assistance that report increased understanding of RCRA requirements. ▸ % entities receiving State-provided compliance assistance that report improved hazardous waste management practices. ▸ % entities receiving State-provided compliance assistance that report reduced, treated, or eliminated pollution. <u>EPCRA:</u> ▸ # Form R workshops conducted. ▸ # entities that increased their understanding of environmental requirements. ▸ # entities contacted for data quality checks that indicated companies would revise their Form Rs for accuracy. **Evaluation:** Region 5 OECA is now working on a plan that will describe how to evaluate whether the quality and increase of compliance assistance is leading to the measures under Subobjective 5.1.1. This plan will be finished and operational by the beginning of fiscal year 2005.
<u>Subobjective 5.1.2:</u> ***Compliance Incentives*** Achieve a 5 percentage point increase in the percentage of facilities that use EPA incentive policies to conduct environmental audits or other	Improve the quality and increase the amount of audits or other actions by offering the full suite of Agency incentive policies. These include the Audit Policy, Small Business Compliance Policy, and other incentives.

Outcomes/Desired Results	*Regional Strategies/Tools*
actions that reduce, treat, or eliminate pollution or improve environmental management practices.	**Measures:** CAA: ▸ # of sectors or geographic areas determined to benefit from voluntary audit approach. ▸ # of facilities to use incentive policies. ▸ # of pollution reductions resulting from the use of incentive policies. RCRA: ▸ # of entities submitting self-disclosures as a result of use of EPA's policy: *Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations.* ▸ # of entities submitting self-disclosures who also submit reports of (1) pollution (a) reduced and/or (b) eliminated, and/or (2) improved hazardous waste management practices as a result of use of EPA's policy: *Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations.* ▸ % of inspected former self-disclosers having successfully prevented violations of the same RCRA requirements for which they had received penalty mitigation in FY01 and 02. ▸ % of inspected former self-disclosers having successfully prevented violations of any RCRA requirements since the self-disclosure for which they had received penalty mitigation in FY01 and FY02. **Evaluation:** Region 5 OECA is now working on a plan that will describe how to evaluate whether the quality and increase of audits or other actions is leading to the measures under Subobjective 5.1.2. This plan will be finished and operational by the beginning of fiscal year 2005.
Subobjective 5.1.3: ***Monitoring and Enforcement*** Achieve a 5% increase in the number of complying actions taken during inspections; a 5 percentage point increase in the percentage of enforcement	Increase the environmental protection gained from compliance actions by using actions to require pollution reduction, better management practices, and environmental investment of dollars.

Outcomes/Desired Results	*Regional Strategies/Tools*
actions requiring that pollutants be reduced, treated, or eliminated; and a 5 percentage point increase in the percentage of enforcement actions requiring improvement of environmental management practices.	**Measures:** EPCRA: ▸ # of facilities submitting Form Rs in Region 5 as a result of late reporter investigations. ▸ # of facilities submitting Form Rs on time as a result of late reporter investigations. ▸ % facilities submitting Form Rs on time as a result of late reporter investigations. TSCA: ▸ # enforcement actions issued as a result of lead investigations in EJ areas in large cities. ▸ # settled with pollution reduction as a result of lead investigations in EJ areas in large cities. ▸ # dollars invested in improved environmental performance as a result of lead investigations in EJ areas in large cities. ▸ # housing units made lead safe. SDWA: ▸ # high-priority cases identified as result of screening of UIC Database for most serious violations. ▸ # enforcement actions issued as result of screening of UIC Database for most serious violations. CWA: ▸ # enforcement actions issued for violations of Section 404. ▸ # warning letters sent for violations of Section 404. ▸ 100 acres of wetland restored, protected, and mitigated. ▸ # wetland sites that meet quality and quantity criteria. ▸ 1 methodology using Long Term Control Plan milestone data to assess water quality improvements made. CAA (targetting for commitments includes consideration of input from all relevant sources): ▸ 27 compliance evaluations and 10 enforcement actions at industrial facilities, and 13 compliance evaluations and 4 enforcement actions at commercial facilities ▸ Documented emission reductions in each category above.

Outcomes/Desired Results	*Regional Strategies/Tools*
	▸ Complying actions taken during inspections documented in the ICDS. ▸ Emission reductions in cases documented in the CCDS. <u>RCRA</u>: ▸ # of entities inspected with no violations of RCRA detected. ▸ # of entities inspected which, though noncompliant at the outset of an inspection, achieved compliance with the RCRA requirement being violated in the presence of the inspector during the inspection. ▸ % of concluded enforcement actions requiring pollution reduction and protection of populations or ecosystems ▸ % of concluded enforcement actions requiring improved environmental management practices ▸ Amount of pollution reduced by enforcement actions ▸ # of dollars (U.S.) Spent and/or to be spent by violators of RCRA requirements, as a result of formal enforcement actions, to (a) achieve compliance, (b) perform supplemental environmental projects (if applicable), and (c) pay civil penalties. **Evaluation:** Region 5 OECA is now working on a plan that will describe how to evaluate whether enforcement actions are leading to the measures under Subobjective 5.1.3. This plan will be finished and operational by the beginning of fiscal year 2005.

Objective 5.2: Improve Environmental Performance through Pollution Prevention, Innovation, and Analysis. By 2008, improve the environmental performance of governments, businesses, and the public by preventing pollution, increasing efficiency in operations, activities, and products, and creating incentives and reducing regulatory barriers for the adoption of cost-effective, multi-media, results-based approaches.

A. What is the current state of human health or environmental protection for this objective in the Region and any relevant trends over time (i.e., what are indicators or data specific to this objective that characterize current status and trends as context for the regional strategy)?

Pollution Prevention - There is an ever-increasing number of partnership programs coordinated out of the Agency. Many of these voluntary initiatives are keyed at least

partially to P2, so there's the potential for an ever-increasing amount of pollution prevented as a result of participation in these programs. An example of a downward trend is in an area of P2 integration, specifically with regards to the number of P2 SEPs as a part of enforcement actions.

Innovation - More and more businesses and industries are developing environmental management systems and other innovative environmental solutions, and Region 5 is working hard to increase the number. However, Region 5 lacks a cohesive approach to innovation among its programs. Businesses and industries are currently reached as individual entities instead of by sector; there needs to be a switch to working with sectors for more effective innovation use.

NEPA - Environmental issues associated with Federal projects and actions subject to NEPA are very project-specific and are not easily generalized.

B. What are the major problems that need to be addressed in order to make progress toward this strategic objective in the Region?

Pollution Prevention - There is a desperate need to integrate P2 into the normal everyday work that is done by the Region. Until this happens, P2 will not happen to the degree that is envisioned by the Agency's national strategic plan. Program managers need to "own" this work as they do other work and successfully measure the increase in P2.

Innovation - EPA's policy , its desire to be consistent, and rules and regulations have blocked innovation approaches suggested by businesses and states - making it difficult to provide flexibility in this area.

NEPA - Emerging environmental issues (e.g., air toxics, invasive species, climate change, secondary land use development, ecosystem health) will increasingly need to be addressed in Federal NEPA documents in order for direct, indirect, and cumulative environmental impacts to be more fully understood by Federal decision makers. NEPA process streamlining, especially for major transportation projects, is a priority of the Administration and Congress.

Outcomes/Desired Results	***Regional Strategies/Tools***
Subobjective 5.2.1: ***Pollution Prevention by Government and the Public***	
A. Reduction of pollution/waste in Region 5 through better Government operations. **Measures:** ‣ Full implementation of Greening of the	Promote reduction of pollution/waste in Government and business in the Region by following "Greening of the Government" Executive Orders

Outcomes/Desired Results	*Regional Strategies/Tools*
Government executive orders.	**Evaluation:** Region 5 is now working with OPPTon a plan that will describe how to evaluate whether P2 integration into media programs' regulatory and nonregulatory activities is leading to the measures under Subobjective 5.2.1. This plan will be finished by the end of annual year 2004.
B. Increase in public's awareness of, and role in, preventing pollution in Region 5. ▸ # people reached by information regarding preventing pollution. ▸ # of people participating in activities to reduce pollution.	Promote prevention of pollution/waste source reduction in the public in the Region by distributing education/outreach materials; and participating in national and regional efforts to promote P2 (e.g., voluntary initiatives and partnership programs such as Energy Star). **Evaluation:** Region 5 is now working with OPPTon a plan that will describe how to evaluate whether P2 integration into media programs' regulatory and nonregulatory activities is leading to the measures under Subobjective 5.2.1. This plan will be finished by the end of annual year 2004.
C. Reduction in use of hazardous chemicals in Clark lab and implementation of sustainable use practices in both the Clark lab and Jackson building. **Measures:** 1. Both the R5 Jackson and the Clark lab have certified EMSs which are being implemented in accordance with EO13148 and EPA national policy statement. 2. Achievement of environmental goals in EMS that are currently being developed. 3. Number of events/activities conducted or participated in by Regional staff that promote and the understanding and value of effective EMS.	Region 5's EMS Coordinator is working with two teams to develop EMS for the Clark lab and the Jackson building. The team is developing the environmental aspects and environmental management plans and operational control plans which have set goals for reducing use of hazardous chemicals and putting into place operational controls which ensure sustainable practices in both building which are complementary with rules and regulations. In house training will focus on increasing awareness of EMS and individual responsibilities. Region 5 will promote environmental stewardship by having a certified EMS at both the Jackson and Clark buildings and promote the understanding and value of effective EMS internally and externally. **Evaluation:** To be determined.

Outcomes/Desired Results	*Regional Strategies/Tools*
Subobjective 5.2.2: ***Pollution Prevention by Industry*** Reduce pollution in business operations through the adoption of more efficient, sustainable and protective policies, practices, materials and technologies. **Measures:** ▸ Lbs. pollution reduced, gallons water saved, or energy conserved. ▸ % of TRI waste reduced	1. Promote prevention of pollution/waste source reduction in industry in the Region by providing networking and training activities, technical assistance, and grants to state/local governments, tribes and NGOs; developing and/or distributing education/outreach materials; and participating in national and regional efforts to promote P2 (e.g., voluntary initiatives and partnership programs such as Energy Star). 2. Improve P2 data collection and management. 3. Integrate P2 into state and federal compliance assistance, enforcement actions, permits, technical assistance and other regulatory procedures. **Evaluation:** Region 5 is now working with OPPT on a plan that will describe how to evaluate whether P2 integration into media programs' regulatory and nonregulatory activities is leading to the measures under Subobjective 5.2.2. This plan will be finished by the end of annual year 2004.
Subobjective 5.2.3: ***Business and Community Innovation*** A. Improved compliance and increased stewardship practices in five Region 5 priority sectors. **Measures:** 1. Five R5 significant sectors are participating in the national sector strategy and are working with the Region and HQ on the development of integrated strategies and EMS template for each sector.	Region 5 is developing a Regional Sector Framework that complements national sector strategy and targets the Region's priority sectors. The framework will identify priority sectors, team members and responsibilities, participating partners, and accountability. Identified team members will work with headquarters on outreach and development of EMS templates.

Outcomes/Desired Results	*Regional Strategies/Tools*
2. 2 of 3 sectors achieving goals established for improvement in environmental performance and development of EMS template.	**Evaluation:** To be determined.
B. Small businesses in Region 5 routinely consult with Region 5 regarding assistance programs, compliance issues, pollution prevention, and environmental management. **Measures:** ‣ Number of small businesses improving environmental management. ‣ Number of small businesses adopting environmental stewardship practices.	Region 5 Compliance Assistance Coordinator and Regulatory Innovation Coordinator work with programs to identify opportunities to provide technical assistance to small businesses. Region 5 will use a variety of innovative tools and approaches, voluntary programs, and pollution prevention practices to improve the way small businesses manage their environmental impacts. The small business effort will keep up to date on regional regulatory issues. **Evaluation:** To be determined.
C. Reductions of 3% in water use, 3% in energy use, 3% in total solid waste, 1% in air releases, and 5% in water discharges by Performance Track members who commit to improvements in those categories. **Measures:** ‣ 3% reduction in water use ‣ 3% reduction in energy use ‣ 3% reduction in solid waste ‣ 1% reduction in air releases ‣ 5% reduction in water discharges	Encourage reductions in pollution by Performance Track members by recruiting high-performing facilities to apply for membership in the program, ensure that successful applicants have developed meaningful environmental commitments, conduct site visits at approximately 20% on facilities annually, provide program incentives as appropriate, and carefully review and evaluate annual performance reports. **Evaluation:** Will be based on performance data provided by member facilities in annual performance reports.
Subobjective 5.2.4: ***Environmental Policy Innovation*** A. New practices and approaches that improved environmental results or result in program efficiency and effectiveness are adopted by Region 5 programs, and if relevant, by Headquarters.	Region 5 Innovation Network and OSEA Innovation Manager and Coordinator work with states and other partners to pilot projects that test new approaches, such as State innovation Grant Program, ERP and EMS, for

Outcomes/Desired Results	*Regional Strategies/Tools*
Measures: ‣ # of State Innovation Grants implemented and results shared with HQ and other offices. ‣ # of approaches tested and evaluated. ‣ # of new practices and/or approaches tested, that are adopted by programs for implementation.	better ways to gain environmental results. The team members work with National Program Offices. Projects will be implemented following the guidelines of the national program or the grant competition, and other relevant policies/strategies. **Evaluation:** To be determined.
B. Flexible approaches, cross media collaboration, and innovative thinking are routinely used to strategically address the Region's priorities issues and problems as a result of the Senior Policy Group's Region 5 Innovation Agenda. **Measures:** ‣ # of Regional priorities advanced by Senior Policy Group and the Innovation Action Council member, integrated into the national innovation agenda. ‣ # of R5 innovation initiatives/efforts that are national models.	The Senior Policy Group Region 5's Innovation Agenda provides an overall focus and direction for the Region's (cross program) innovation efforts. By addressing innovation as a group, the Region's Innovation Agenda will foster collaboration and innovative thinking to address issues and solve problems across programs, and identify emerging areas ripe for new approaches. The Region's Innovation Agenda will be supported by an Innovation Network comprised of mid-level managers and experienced veterans of innovation projects, and State representatives. **Evaluation:** To be determined.
Subobjective 5.2.7: ***Implement NEPA*** A. Provide comments on other agencies' NEPA documents to enhance the environmental quality of federal decisions. **Measures:** ‣ # of EISs that are commented on and rated. ‣ % of EPA comments on Draft EISs resolved in the Final EIS or Record of Decision ‣ # of terrestrial and wetland acres protected and/or mitigated as a result of EPA comments. ‣ # of related NEPA documents (e.g., scoping documents, environmental	Within the comment periods specified by the sponsoring agencies, ensure EPA compliance with Clean Air Act Section 309 review process by reviewing other Federal agencies' NEPA documents and providing comments that enhance the environmental quality of federal decisions. Provide early involvement and input on selected projects and planning efforts. **Evaluation:** To be determined.

Outcomes/Desired Results	*Regional Strategies/Tools*
assessments, preliminary EISs) commented on.	
B. Congressional special appropriation projects for drinking water and wastewater infrastructure are implemented without significant adverse impacts to the environment. **Measures:** ‣ # of categorical exclusions, environmental assessments/findings of no significant impact, or environmental ‣ impact statements/records of decision issued in support of special appropriations grants.	Ensure EPA compliance with NEPA by conducting a NEPA analysis of all relevant special appropriation construction projects for wastewater and drinking water infrastructure, coordination with grantees, the Water Division, other EPA programs, and other agencies, as part of the regional grant award process. **Evaluation:** To be determined.

Objective 5.3: Build Tribal Capacity. Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building tribes' capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.

A. What is the current state of human health or environmental protection for this objective in the Region and any relevant trends over time (i.e., what are indicators or data specific to this objective that characterize current status and trends as context for the regional strategy)?

There as been limited advancement in the development of environmental programs to address the various environmental/human health issues that are present in Indian country. In the mean time we are also only partially success in the direct implementation of the programs that have not been delegated to the Tribes.

B. What are the major problems that need to be addressed in order to make progress toward this strategic objective in the Region?

‣ The lack of funds has not allowed the Region to adequately pursue direct implementation of environmental programs on Tribal land. The funding issue also affects the Region's ability to work with Tribes to promote the identification and development of environmental programs to be delegated.

Outcomes/Desired Results	*Regional Strategies/Tools*
A. Elimination of 20% of the data gaps for environmental conditions for major EPA water, land and air programs as determined through the availability of information in the EPA Tribal Baseline Assessment Project. **Measures:** ‣ Elimination of 20% of data gaps	Develop strategy that will address data gaps identified in the EPA Tribal Baseline Assessment Project Evaluation: Region 5 IEO is now working on a plan that will describe how to evaluate whether the strategy above is leading to outcomes stated in the first column.. This plan will be finished by the end of annual year 2003.
B. 100% of the federally recognized tribes have access to general multi-media capacity building funding as determined by the number of tribes receiving Indian General Assistance Program (GAP) funding. **Measures:** ‣ 100% tribes have access.	Develop Tribal Capacity to Protect the Environment by promoting participation of Region 5 Tribes in the GAP. **Evaluation:** Region 5 IEO is now working on a plan that will describe how to evaluate whether the strategy above is leading to outcomes stated in the first column.. This plan will be finished by the end of annual year 2003.
C. 50% increase in the number of tribes with environmental monitoring and assessment activities occurring under EPA approved quality assurance procedures as determined by the number of Quality Assurance Practice Plans in use. **Measures:** ‣ 50% increase in tribes with monitoring and assessment activities.	Develop Tribal Capacity to Protect the Environment by providing funding and technical Assistance via GAP/TEA for Tribes to address Environmental Monitoring Assessments **Evaluation:** Region 5 IEO is now working on a plan that will describe how to evaluate whether the strategy above is leading to outcomes stated in the first column.. This plan will be finished by the end of annual year 2003.
D. Increased implementation of environmental programs in Indian country to X (cumulative total) as determined by program delegations, approvals, or primacies issued to tribes and direct implementation activities by EPA and determined by direct programs activity or the number of Direct Implementation Tribal Cooperative Agreements (DITCAs) awarded. **Measures:**	Promote the implementation of EPA Statutory Programs in Indian Country by investigating pathways to carry Tribal programs form development to Federal status. Including addressing DI responsibilities and DITCAs **Evaluation:** Region 5 IEO is now working on a plan that will describe how to evaluate whether the

Outcomes/Desired Results	*Regional Strategies/Tools*
1. # delegation, approvals, or primacies issued.	strategy above is leading to outcomes stated in the first column.. This plan will be finished by the end of annual year 2003.
E. A TEA process that includes tribal priorities from all reservations, and to improve integration of tribal priority information into program planning. **Measures:** ‣ 1 TEA process	Address Tribal Environmental Priorities by promoting all EPA Region 5 Tribes to participate in TEA process. Work with Planning Network to promote Tribal environmental needs during Agency planning budget activities. **Evaluation:** Region 5 IEO is now working on a plan that will describe how to evaluate whether the strategy above is leading to outcomes stated in the first column.. This plan will be finished by the end of annual year 2003.
F. Development of 15 (cumulative) EPA and interagency cross program software applications to increase the use of EPA Tribal Baseline Assessment Project information in setting environmental priorities and informing on policy decisions. **Measures:** ‣ 15 EPA software applications	To incorporate the use of Tribal Baseline Assessment information into cross program software by sharing data. **Evaluation:** Region 5 IEO is now working on a plan that will describe how to evaluate whether the strategy above is leading to outcomes stated in the first column.. This plan will be finished by the end of annual year 2003.
G. 50% increase in the number of tribes with multi-media programs reflecting traditional use of natural resources as determined by use of PPGs integrated TEAs or other agreements. **Measures:** ‣ 50% increase in tribes	Work with Tribes to identify the natural resources to be used traditionally thru the use of the TEAs, PPGs and other agreements. **Evaluation:** Region 5 IEO is now working on a plan that will describe how to evaluate whether the strategy above is leading to outcomes stated in the first column.. This plan will be finished by the end of annual year 2003.

III. Regional Approaches to Implementing the Agency's Cross-Goal Strategies

In its Strategic Plan, EPA identified a number of areas where cross-Agency, cross-media work is necessary to meet the Agency's goals and objectives, and articulated the strategies or means employed to carry out that work. This chapter of the Region 5 Plan briefly explains how we intend to implement the national strategies for Information, Innovation, Human Capital, and Science in Region 5.

Information

Region 5 is currently preparing a strategic plan to implement the Agency's Information Goals. Accurate, timely, and comprehensive information is critical for Region 5 to fulfill its mission. In order to maintain and enhance the value of its information assets, the Region will continue to support the improvement of data quality, implementation of data standards, enhancement of compatible data systems, and identification and filling of major data gaps. At the same time, the Region will continue to support OEI's goal of regionalizing the National Report on the Environment with leadership on the indicators sub-committee and program support of finer scale information. We will also stay abreast of new technologies and invest in technologies that can best support the Agency's business processes and changing information needs. These new technologies could include standardization of desktops to cut support costs, voice and video over an internet provider, collaboration tools such as identity management, electronic content management and infrastructure upgrades. The Region's Information Management Branch (IMB) and Office of Information Services (OIS) are effectively using the cross-program Information Resources Management Steering Committee (IRMSC) to review and provide advice on IRM policies, priorities, strategies, and programs, and for assisting in communicating and implementing these policies and priorities within Region 5.

Innovation

Region 5 maintains an Innovation Action Team that works with regional and national programs and with states to develop and test innovative approaches for regulating pollution and streamlining program implementation. This team develops effective partnerships with states, businesses and non-governmental organizations for greater environmental results. Its activities include:

* managing regulatory innovation projects and initiatives
* facilitating the Region's commitments to the National Innovation Strategy
* promoting partnership-building with external stakeholders
* evaluating innovations

Human Capital

Region 5 is currently in the final stages of the development of its own strategy to implement the Agency's Human Capital Strategy. Information on Region 5's strategy will be included in the Regional Plan once the strategy has been completed and approved by the Regional Administrator.

Science

The Region has prepared its own strategy for Science which complements and supports the national cross-goal strategy for science. This Regional Science Strategy identifies actions that will be undertaken to improve our scientific skill mix, enhance science collaboration/communication activities, and ensure that our scientists and decision makers work to make science a key component to regional priority setting. Region 5's Regional Science Strategy can be found at: http://www.r5intra.epa.gov/divisions-offices.htm/osea .

IV. Regional Accountability and Performance Measurement Tools

Region 5 will track accountability with the annual goals and measures utilizing the on-line commitment system currently under development as an adjunct to the Regional Plans. Commitments will be developed and progress tracked and reported in accordance with the annual commitment process guidance prepared by OCFO, and in keeping with the practices and processes which will be developed by the Region 5/States Pilot Project on Planning and Accountability and adopted by Region 5 and the States.

The Region will also prepare a semiannual report for the Regional Administrator on efforts to achieve the measures of success for the Region 5 Challenges outlined in Chapter 1 of this Plan. Progress on reaching the milestones identified and the impacts of the efforts to reach those milestones will be integrated into the Regional Report on the Environment, which will track trends and identify emerging environmental and human health issues in the Region. That Report will then serve as a basis for further strategic discussions with our co-regulators and partners at the states and tribes, and factor into the development of Performance Partnership Agreements, Program Cooperative Agreements, and Tribal Environmental Agreements.

Regional Program Managers will also report in-depth semiannually to the Regional Administrator and Deputy Regional Administrator on a few key measures for each of the major programs and support activities for which annual performance goals and measures have been developed. Those key measures will include both ones for which the Region has made commitments to the NPMs and non-commitment measures which are critical to the success of the program or support activity. In keeping with the principle of continuous improvement, the semiannual reports will include information on the implementation of the evaluation plans outlined in Chapter 2 of this Plan, and provide information on how the results of evaluations and accountability reporting will be used to enhance the level and quality of results achieve by the program or activity.

V. Partnerships with the Region's States and Tribes

Coordination with the States and Tribes on the Regional Plan

Early in calendar year 2003, the Regional Administrator (RA) sent an email to state environmental commissioners and tribal chairs inviting their input to the development of Region 5 priorities and strategies for the Regional Plan. The response to this request was very limited, but that which was received was factored into the draft Regional Strategies for Achieving Agency Goals and Objectives, which was submitted to OCFO in April 2003. During HQ review of that draft, the Region discussed the Regional Plan process and the Region's desire for state and tribal input to the plan at two meetings of the RA with the state environmental commissioners and at two meetings with the Regional Tribal Operations Committee. In August 2003, a revised draft of the Regional Strategies for Achieving Agency Goals and Objectives was sent to program managers in the environmental agencies of each of the six states in the region and to selected tribal environmental coordinators. Feedback on that draft received from the states and tribes was then factored into the development of the draft of the complete Region 5 Plan, which was submitted to OCFO in January 2004. Further coordination with the states and tribes has been carried out and their feedback has been factored into this edition of the Plan. Region 5 will continue to work with the states and tribes to improve the Plan and utilize it as a shared management tool.

The State of the Partnerships

All of the environmental programs managed by the states in Region 5 are faced with significant, and in some cases crippling, resource shortfalls. Increasingly, the state environmental and natural resource agencies have been appealing to the Region for assistance in managing base program activities. Similarly, tribal governments in Region 5 do not in most cases have the resources to implement environmental programs necessary to protect the health of tribal members and the natural resources of the tribe. They, consequently, look to Region 5 to carry out those programs as part of the United States Government's trust responsibility to the tribes.

This problem of insufficient resources is not likely to be diminished in the short-term and, as a consequence, finding ways to deal with it has become the top priority of Region 5's partnership with the states and tribes. A major focus of the Region's efforts in addressing this priority is to work with the States and Tribes to find innovative ways to achieve the objectives of the base programs that will allow us to protect the environment more efficiently. As a first step, Region 5 has begun to implement processes to make better use of joint priority planning with the states and tribes.

These processes emphasize:

- Setting joint priorities with states in Environmental Performance Partnership Agreements (EnPPAs) and with tribes in Tribal Environmental Agreements (TEAs) more effectively, using them to inform Regional planning, and re-directing work as necessary to accomplish a joint goal.

Joint Priorities and Joint Planning: *A more inclusive understanding*

In this context joint priorities and joint planning mean focusing on any area which a State or Tribe and the Region agree needs our mutual attention - it could be an environmental issue, a national EPA priority or budget initiative, a specific place, a particular pollutant, or a problematic process that needs fixing in order to free up time and resources. We could focus for the long term or short term, as the needs dictate. An important component is joint measurement, so we both know when we've accomplished what we set out to do.

- Approaching states who maintain the State-EPA relationship through traditional work plans with opportunities for joint planning on a Regional scale.

- Looking at other forms of partnership agreements (in addition to EnPPAs).

Fostering Partnerships with the States

Currently, four of the Region's six states - Illinois, Indiana, Minnesota, and Wisconsin - are actively involved in the National Environmental Performance Partnership System (NEPPS) and join the Region in Performance Partnership Agreements (PPAs). The Region continues to work with the remaining two states - Michigan and Ohio - in developing categorical grant agreements each year. Michigan is currently considering whether to initiate engagement in the NEPPS process.

Region 5 is participating with the States of Indiana, Minnesota, and Wisconsin in a pilot project to model implementation of the newly aligned national planning and priority setting processes developed by the ECOS/EPA Work Group on Alignment. The purpose of the tilot troject is to demonstrate an enhanced state-federal partnership that results in shared environmental priorities, increases efficiency, prevents duplication of effort, and assures mutual accountability for performance. Under the pilot, the Region 5 Regional Plan will be used as a primary point of nexus for joint planning and priority setting by the states and EPA.

The pilot project is also intended to create an improved NEPPS framework that allows selected reforms and regional innovations to be applied in the planning and priority setting processes, particularly for Performance Partnership Agreement/Grant (PPA/G)s. Within the NEPPS framework, the pilot project will identify:

a) an investment/disinvestments process to address situations where competing priorities may require shifts in program resources,
b) improvements to the self-assessment process so that it addresses accountability for both the states and EPA,
c) pertinent flexibility initiatives and innovations found in other pilot projects for incorporation into a range of options for Region 5,

d) opportunities to maximize process improvements such as reduced reporting requirements, improved information technology utilization, etc.,
e) the need for appropriate evaluation mechanisms, and
f) other innovations and reforms agreed to by the states and EPA.

The pilot project is scheduled to be completed by the end of calendar year 2004.

As stated above, individual state priorities and those shared by Region 5 and the state are reflected in the PPAs. The next round of multi-year PPAs are due to be completed before the end of federal FY 2004. Those agreements will be posted on Region 5's internet site and a link to them added to this Chapter of the Region 5 Plan.

Fostering Partnerships with the Tribes

All partnerships with tribes are guided by the 1984 Indian Policy. The primary focus for overall planning between EPA and the tribes is the Tribal Environmental Agreements (TEAs). The tribes each develop a TEA that focuses on specific environmental problems, programmatic development, and capacity building. The TEA also includes estimated costs, resources, objectives, and projected time lines. The Region has instituted the use of TEAs as the primary planning process. Individual TEAs have been negotiated with 33 of the 35 tribes in Region 5.

In addition to TEAs, Region 5 and the tribes convene the Regional Tribal Operations Committee (RTOC) which is the mechanism by which tribal officials and Region 5 senior managers meet to provide input and share information on Federal program direction and implementation and tribal needs and concerns. The Region is also a member of the Interagency Memorandum of Understanding for federal agencies with tribal responsibilities.

Tribal priorities in Region 5 include measures to protect and restore ground and surface sources of drinking water; improve indoor air quality in homes, businesses and schools on the reservations; address water and wastewater and solid waste management infrastructure needs; and expand ambient monitoring and targeted studies of air, water, and land resources in order to better characterize the current state of those resources and enhance their management.

Partnering on the Great Lakes

The U.S. Policy Committee is a forum of senior-level representatives from EPA and other Federal, State, and Tribal governmental agencies that share responsibility for environmental protection and natural resources management of the Great Lakes. The Policy Committee has adopted a Great Lakes Strategy to advance the restoration and protection of the Great Lakes Basin Ecosystem. The Strategy is focuses on U.S. Federal, State and Tribal government environmental protection and natural resource management activities as they relate to fulfilling the goals of the Great Lakes Water Quality Agreement between the United States and Canada. This Strategy serves

to coordinate and streamline efforts of the Committee member agencies, by focusing those efforts on a set of common goals on high priority multi-Lake and basin-wide environmental issues. The Strategy employs and supports multi-stakeholder environmental protection efforts in the Great Lakes, such as Lakewide Management Plans (LaMPs) and Remedial Action Plans (RAPs) for Areas of Concern (AOCs), by integrating them in an overall basin-wide context to address issues that are beyond the individual scopes of these programs.